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ONE-TEACHER ELEMENTARY SCHOOLS

COURSE·OF·STUDY AND HANDBOOK OF ORGANIZATION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC INSTRUCTION
HARRISBURG

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One-Teacher Elementary Schools
Course of Study
and Handbook of Organization

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF PUBLIC INSTRUCTION

One-Teacher Elementary Schools Course of Study and Handbook of Organization

(Revised Reprint)

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1930

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INTRODUCTION

A number of the leading educators in the state criticized individually and in conference the material in the original Handbook of Organization and Courses of Study for one-teacher Elementary Schools. To them thanks are due.

The present Course of Study and Handbook of Organization for one-teacher Elementary Schools is a revision and enlargement of this original material. It includes an introduction to the courses of study that deal directly with character education as it should operate in our schools. The courses of study in Physical Education and Health Instruction have been completely revised. Slight changes have been made in some of the other courses of study. Material on Project Work in Homemaking Activities and material on the Preparation of the Hot Lunch have been inserted.

The first purpose of this Course of Study and Handbook for one-teacher schools is to lay before teachers, superintendents, and boards of directors, suggestions on organization and instruction in such schools. On the minimum courses of study herein set forth as required by the School Law, each district, with the advice, assistance, and approval of its superintendent, can arrange courses of study adapted to the age, development, and needs of the pupils. A second purpose is to present the essential facts of the School Law as they pertain to pupils and teachers. A third purpose is to call the attention of boards of directors to the need of making the one-teacher elementary school building as comfortable and attractive as it can be made.

Every one-teacher school building should be provided with clean and sanitary water closets, with heating equipment that will keep it warm in the severest weather, with a sufficient supply of pure drinking water, with a seat for each pupil, with plenty of slate blackboard, with drawing and writing supplies and maps, with plenty of supplementary reading matter, and with library books for reference and for home reading. But the most valuable part of the one-teacher school equipment will be the teacher who can organize such a school and carry on the instruction with energy, sympathy, and adaptability. The teacher who can so serve a one-teacher school should be given every encouragement by the board of directors to continue in such service.

Boards of school directors should coöperate with teachers in their efforts to so organize and carry out a program of instruction under the direction of the county superintendent's office as to give the boys

and girls the best advantages for improvement that can be had. County and assistant county superintendents can to advantage discuss with teachers what has been proposed as a minimum basis, and through practical trial find what further modifications ought to be made of the plan of organization of the subject matter for instruction. The Department of Public Instruction will appreciate any suggestions that will guide it in modifying to advantage what has been proposed.

JOHN A. H. KEITH,

Superintendent of Public Instruction.

PART ONE

THE PROBLEMS OF THE ONE-TEACHER SCHOOL

PART ONE: THE PROBLEMS OF THE ONE-TEACHER SCHOOL

I. FOUNDATIONS FOR EFFECTIVE TEACHING

A. DEVELOPMENT OF THE QUALITIES OF THE IDEAL AMERICAN PERSONALITY

1. Objectives in American education

The objectives of American education are the same in every type of school: the development of the qualities of the ideal American personality. Such a personality is a unification of two things: (1) The qualities that the civilized world as a whole recognizes as desirable; (2) The qualities that assure the preservation and development of our civic life.

2. Universality of Practice in Conduct

The school that preserves and develops the qualities of the ideal American personality must itself be an expression of these qualities. Every minute of the school day is a period of character education whether the teacher is conscious of it or not. The boy with a geography lesson to prepare practices diligence or indifference. The pupil who solves his arithmetic problems with resentment toward his teacher in his heart, may secure the correct answers to the problems, but he is at the same time practising undesirable thoughts and feelings. Fear may keep the pupil from replying in kind to the sarcastic teacher. He is nevertheless practising silently the returns that he would like to make. It is possible to teach William Penn's treaty with the Indians so that the impressions of the class will center around the dramatic aspects of the event, and with little or no appreciation of Penn's desire to treat the Indians fairly. In short, practice in character qualities, good or bad, is a concomitant of every thought and act of school life.

B. LIMITATIONS OF A COURSE OF STUDY

1. Importance of Character-Forming Activities

Some of the materials in courses of study are character educative in themselves. Much of it is character educative, only if the teacher organizes the material in character forming activities. Courses of study bear the same relation to the outcomes of school life as the organization of a menu bears to the completed meal. The menu lists what is to be served. The success of the meal is determined by the

quality of the food, the method of its preparation, the sense of harmony and fitness that is expressed in the arrangement of the table, the reactions of the guests and other factors.

2. Relation of the Teacher to Character Education

It follows that the whole matter of character education through school life is largely in the hands of the teacher; in the skill with which she guides her pupils toward desirable outcomes. When teachers are as anxious that their pupils shall learn to want to cast their ballots at civic elections, as they are that they shall know the multiplication tables and spell correctly, the percentage of our citizens who perform this duty will undoubtedly increase accordingly. So, too, when teachers are as anxious that their pupils shall learn to seek and demand the operation of law and order as they are that they shall make satisfactory progress in learning to read, the operation of law and order will no doubt take on additional vitality. Dr. Mark A. May, Professor of Education, Yale University, and a noted student of character education says that the major implication of research and investigation as to character growth is that *character can be taught.*

3. Application to the One-Teacher School

As pointed out, the objectives of American education apply to all schools alike. What the teacher of the one-teacher school should seek for her pupils differs in no particular from what teachers in other types of schools should seek for their pupils. The conditions under which the one-teacher school operates, however, makes its organization a vastly different problem from that of the graded school.

II. SPECIAL ORGANIZATION FOR ONE-TEACHER SCHOOLS

A. CLASSIFICATION

A one-teacher school that has thirty or fewer pupils may be so organized and conducted that it will offer effective instruction and congenial school life. In order to do this, the school needs to be under the direction of a skillful teacher who is in sympathy with the pupils and their home life. The schoolroom needs to be comfortable, attractive, well equipped, and well cared for. There should be a flexible system of classification that lays emphasis on the pupil and his needs, as well as on the course of study. The program should be so organized that pupils can be taught how to study on their own responsibility, and to rely on their own efforts.

In organizing a one-teacher school on a graded plan the first question to be asked is, where does the pupil's age, his ability, his person-

ality, fit him to get most out of the school life? It should be kept in mind that the lines of division between what is generally spoken of as grades cannot be so clearly emphasized as they are in graded schools with eight or more teachers.

All pupils of a class are seldom equally ready to pursue all subjects assigned for a given year's study. A pupil may have difficulty in one branch or excel in another, while in the rest of the branches he can work to advantage with a majority of the class. Such a pupil should be permitted to work with the class ahead of him or behind him in the branches where his ability is above or below the average. Or he may be encouraged to pursue such studies on his own responsibility. All pupils in a class do not necessarily have to keep abreast, yet they may work together as a group to great advantage and economy. The purpose to be sought in the classification of a one-teacher school is a free movement forward of both pupils and classes. This movement forward will come more through a type of teaching that will stimulate a certain amount of thinking on the part of the pupils each day than it will with teaching that attempts to present all detailed matters in a course of study.

1. Simplifying the Organization

Progress in a one-teacher school is greatest when a program is so simplified that it can be carried out without confusion and when the recitation periods are of sufficient length to make instruction effective. A simplification of this kind may be brought about in several ways:

a. By presenting such subjects as music, handwriting, physical training, and to some extent the art work to the whole school as a group, or unit.

b. By combining pupils from two different years into a class.

c. By teaching portions of certain branches in alternate years.

d. By correlation of subjects.

e. By substituting one branch for another on one or two days of the week.

2. Possibilities in a One-Teacher School

There is a social gain that comes from using so large a unit as the whole school in attempting to acquire common essentials. The whole school may become a unit for physical training, for music, for instruction in handwriting, and for much of the work in art. The good that comes from a common effort in a one-teacher school has long been evident from such periods of a school day as are devoted to the opening exercises, exercises of a literary nature, the appreciation of music and art, and the general recreation at recess periods.

The simplification of the program through combination, alternation, coördination, and substitution is not without its advantages. By reducing the number of classes more time is given to the teacher for instruction in recitation periods and for the direction of study periods. The longer periods for instruction in the upper classes that come from combining the pupils of two different years into a class unit will be of more advantage than will the very short periods if the pupils of each year make a separate class. In the lower classes where the ability of pupils to follow class instruction with sustained attention is not so great, the advantage in time can be given to more careful direction of the seat work and in some different years. For example, in the first period for the D class, as given in the suggestive schedule, the teacher's time for twenty minutes should be divided between the beginning pupils and the second year pupils. It should be kept in mind that the teacher's attention to pupils is most needed in the lower classes. The classes better trained in studying can manage to do much on their own responsibility.

The organization of a one-teacher school will necessitate teaching pupils in the art of voluntary concentration in the presence of other pupils at work, a thing that in practical life is of a very great advantage. There will also result a certain amount of practice in voluntarily listening to and learning from other groups, a thing hard to prove as a social or even a school advantage.

3. Definition of Terms

a. *Year.* "Year" is used in the sense of indicating where a pupil stands in a six-year or eight-year elementary course. For example, a fourth year pupil is one who has been promoted after having been enrolled in school three years, or who has satisfied his teacher that he can work to advantage with a group of pupils who have been in school three full years. A sixth year pupil is one who is studying the graded subject matter for the sixth year, but in the plan of alternation he may study fifth year graded subject matter in English during his sixth year work in school.

b. *Class.* "Class" means a group made up from the pupils of two different years as they are combined for purposes of simplified organization, as herein suggested.

A general practice is to organize a one-teacher school into four classes. When eight years make up the school enrollment, the pupils of the first and second years form the D class, the pupils of the third and fourth years form the C class, the pupils of the fifth and sixth years form the B class, and the pupils of the seventh and eighth years form the A class. Such a combination of years into classes is a com-

promise between desirable classification and the necessity of saving time for more effective instruction.

c. *Alternation.* "Alternation" means giving, during one school year, to a class made up of pupils from two years or grades of the school enrollment, the graded work for one year while the other year's work is omitted. The next school year the work omitted is taken up. By this plan the pupil does all the work of the course of study but not in the same order. The graded work for the A class, and for the B class, is so arranged that one year's work is about as difficult as the other and it matters little which year's work is taken up first. The work should be so planned as to catch essential matter skipped in alternate years.

Alternation is not possible in the first and second years except for literature and nature study, nor is it always possible to alternate reading and arithmetic to advantage in the third and fourth years; but it is possible to reduce the number of recitation periods by having the time, allotted for example to the C class, divided between the two years that make up that class. The work in composition, geography, and history, can be alternated to advantage.

In the fifth and sixth years (the B class), all subjects may be alternated. The only variation advisable might be in connection with teaching common and decimal fractions.

In the A class all subjects should be alternated. This can be done in reading, in composition, in history and civics, as arranged for the seventh and eighth years, and in geography and science, as outlined for these years. Alternation is possible also in arithmetic. For example, percentage in the seventh year and mensuration in the eighth year may be alternated.

In order to avoid confusion in the records of progress through the school, the odd years of work should be taught during the terms beginning in the even years and the even years of work should be taught during the terms beginning in the odd years. The teacher will need to plan ahead for two years with each class. She will also need to preserve her plans at the end of each school year and make accurate records of progress for her own convenience, or in anticipation of a change of teachers.

Alternation must be looked on as a compromise measure made necessary in a room having six or eight years of work to be done by one teacher. It has attendant disadvantages and the teacher's task is to overcome some of them by exceptional planning and manipulation, as set forth in a suggestive way in these pages. When this is well done alternation will bring into the one-teacher school that which exists in

actual social situations where persons varying in age acquire subject matter without regard to its sequence in time. The following is a suggestive plan for alternation.

ALTERNATION IN BRANCHES

Subject	C Class	B Class	A Class
Reading	No alternation	Sixth year work	Eighth year work
Composition—Spelling	Fourth year work	Sixth year work	Eighth year work
Arithmetic	No alternation	Sixth year work	Eighth year work
Geography—Nature Study	Fourth year work	Sixth year work	Eighth year work
History—Civics	Fourth year work	Sixth year work	Eighth year civics

Note: In the D class use the second year nature study and literature. In the A class the last half of the eighth year geography is to be given to agriculture.

ALTERNATION IN BRANCHES

Subject	C Class	B Class	A Class
Reading	No alternation	Fifth year work	Seventh year work
Composition—Spelling	Third year work	Fifth year work	Seventh year work
Arithmetic	No alternation	Fifth year work	Seventh year work
Geography—Nature Study	Third year work	Fifth year work	Seventh year work
History—Civics	Third year work	Fifth year work	Seventh year history

Note: In the D class use the first year nature study and literature.

d. *Correlation.* Correlation of subjects is used in the practical sense of learning some of the essentials of one subject as they are incidentally related to another subject that is scheduled for recitation or study. For example, spelling of words is taught in branches where they occur for the first time; composition is taught when topics are discussed in history or geography; geography is taught in connection with the historic development of the United States; drawing is taught through illustrative material used in most of the other branches. Much material for language work deals with nature study and civics, and whatever term is used to indicate the recitation it is clear that some parts of several different branches can be readily correlated.

e. *Substitution.* Substitution of one branch for another on a certain day or days of the week will help in simplifying the program and in lengthening the recitation periods. For example, the work in physiology and hygiene is substituted on Thursdays for geography, composition, reading, and history, taken in order for successive weeks. Art is substituted in the same way on Tuesdays.

With substitution as a means of simplifying the organization of the school, as well as the other means given above, the teacher must exercise due caution, and be sure to secure parental understanding and coöperation.

B. PROGRAM FOR DAILY WORK

1. Suggestions on Making

No definite rule can be laid down for the making of a program for a one-teacher school. The one herein included is merely a suggestive one for a school having all of the eight years. The teacher should realize that much attention should be given to the primary pupils, especially the beginners' class until they learn how to keep busy in school. The teacher should reserve for herself an unassigned period daily for such special help or similar duties. Where the seventh and eighth years can attend a junior high school the problem is much easier. In fact all such pupils in one-teacher schools should be encouraged to attend junior high schools where it is possible to do so. Where no junior high school is within reach, the seventh and eighth year pupils should be brought together at a convenient school designated by the board of school directors for this purpose where transportation is possible.

Each school presents a particular situation to which the program should be adopted. Several fairly well accepted principles on the making and use of a one-teacher school program are these:

1. It should be based on the length of the school day and the table of time distribution to the subjects, as given in Part Six.

2. It should be so arranged that the schedule of work set down can be adhered to each day and be done without hurry or confusion; that is, the program should not be over-crowded.

3. It should provide for periods of from ten to twenty minutes for recitations, or longer if possible, should allow sufficient margin for the assembling of classes, and should provide for two recess periods.

4. In order to keep it in a simple form it should provide for physical training, hand-writing, and music, with all of the years combined. The work in art and physiology and hygiene can largely be done in this way, but substitutions of these subjects one day a week should be made in turn from time scheduled daily for arithmetic, composition, reading, geography, and history.

5. It should be posted in a conspicuous place and carried out with promptness, especially with regard to recess periods and the opening and closing of the school day. The teacher should guard against giving too much time to subjects she particularly likes to teach.

6. The work of the primary grades, both class recitation and seat work, should receive its full share of attention. The whole program should be so carried out that attention can be given to individual needs.

7. The teacher should be at the school three-quarters of an hour before opening in order to carry out the program. Younger pupils might be dismissed earlier in the afternoon or given free play in the open, if the weather is fit. But in most cases the younger pupils need to go home with older brothers or sisters and should have play and handwork, or reading of books, provided for them.

8. It should presuppose the admission of pupils but once a year. Pupils who become six before the end of the term should be admitted in September. An understanding of this sort should be had with the board of school directors.

2. Suggestive Recitation and Study Program For An Eight-Year Elementary Course

The length of the school day and the time distribution table are given in Part Six. Unless by action of the board of school directors, this should not be departed from. The suggestive recitation and study program that follows is based on such a school day:

SUGGESTIVE RECITATION AND STUDY PROGRAM FOR AN EIGHT-YEAR ELEMENTARY COURSE

Begin	Length of Period	Recitation	Grades	Class D I-II	Study		Class A VII-VIII
					Class C III-IV	Class B V-VI	
9:00	10	Opening Exercises	I-VIII				
9:10	20	D Reading—Phonics (a)	I-II	Reading	Arithmetic	Arithmetic	Arithmetic
9:30	15	C Arithmetic	III-IV	Seat Work	Arithmetic	Arithmetic	Arithmetic
9:45	15	B Arithmetic	V-VI	Reading	Library	Arithmetic	Arithmetic
10:00	5	Physical Training	I-VIII				
10:05	20	A Arithmetic	VII-VIII	Seat Work	Reading	Unassigned	Arithmetic
10:25	15	C Reading (e)	III-IV	Blackboard	Reading	Reading	Library
10:40	10	Recess	I-VIII				
10:50	10	D Arithmetic (c)	I-II	Arithmetic	Unassigned	Reading	Unassigned
11:00	15	B Reading	V-VI	Seat Work	Geography	Reading	Geography
11:15	15	C Geography-Nature Study (e)	III-IV	Blackboard	Geography	Drawing	Geography
11:25	15	A Geography (b)	VII-VIII	Reading	Handwork	Geography	Geography
11:40	15	Handwriting (d)	I-VIII				
12:00	60	Noon	I-VIII				
1:00	10	Music	I-VIII				
1:10	15	D Reading-Stories (a)	I-II	Reading	Blackboard	Geography	Unassigned
1:25	15	B Geography	V-VI	Blackboard	Composition	Geography	Composition
1:40	15	C Composition-Spelling (c)	III-IV	Seat Work	Composition	Composition	Composition
1:55	5	Physical Training	I-VIII				
2:00	15	A Composition-Spelling	VII-VIII	Library	Library	Composition	Composition
2:15	15	B Composition-Spelling (b)	V-VI	Drawing	Drawing	Composition	Drawing
2:30	10	Recess	I-VIII				
2:40	20	D Reading-Spelling (a)	I-II	Reading	Reading	Library	Reading
3:00	15	A Reading (b)	VII-VIII	Blackboard	Reading	History	Reading
3:15	15	C Reading (e)	III-IV	Seat Work	Reading	History	History
3:30	15	B History-Civics (b)	V-VI	Excused	Handwork	History	History
3:45	15	A History-Civics	VII-VIII		Unassigned	Unassigned	History

¶Key: (a) Divide time as needed between grades I and II. (b) Combine A and B classes for Art on Tuesday of each week, taking time in order from Geography, Composition, Reading and History; combine in the same way on Thursday for Physiology and Hygiene. (e) Combine C and D classes for Art on Tuesday, taking in order time from Arithmetic, Geography, Composition and Reading; combine the same way on Thursday for Physiology and Hygiene. (d) Give period to Art on Friday. (e) Give period to History on Monday.

3. Explanation of Terms

The terms used in the suggestive program should be interpreted in this way.

a. *Seat Work—Class D.* This term includes what is ordinarily spoken of as busy work and other devices such as word and sentence building, counting by objects, copying from the blackboard. In addition to this, suitable forms of what is termed handwork in the other classes, such as paper folding and cutting, clay modeling, mat weaving, should be provided.

b. *Handwork—Classes C, B, A.* The nature of this work is set forth in the course of study in art. Constructive handwork is highly valuable in itself, and is absolutely necessary as a relief to periods of study. Drawing, designing, lettering, making of posters, modeling, should be planned and provided for the study periods.

c. *Blackboard—Especially for Class D.* The pupils should be encouraged to do work in writing and drawing on the blackboard by large free-arm movement, but the teacher needs to direct it by placing definite copy from which to work. Such copy work should be placed low enough for the children to see well and should be done with care. The pupils should be taught how to clean and take care of a blackboard.

The blackboards should be freely used. The teacher should keep the upper third for indicating the work for the day in each class.

d. *Library.* This should be a period in which the pupil uses books contained in the library. They should be shown how to read books to advantage. The equipment of a library, with the material suggested in Part Five, is as necessary as is any other equipment which needs to be provided.

e. *Unassigned.* Two periods of unassigned time are given daily to the A, B, and C classes. Each pupil should be urged to use this unassigned time according to his own best judgment.

The last hour on Friday or Monday might be used by the whole school for exercises of a general literary nature, including current events.

f. *Recesses.* The teacher should read the suggestions on conducting recesses, under Part Six, and follow them as nearly as possible. The pupils who are in proper physical condition to do so should play outside when the weather is at all fit. The schoolroom should be well aired and the heating looked after so that the room will be comfortable when the pupils reënter. The teacher should observe pupils carefully to see that they are in proper physical condition when sent out for a recess period.

4. Promotion

The promotion of pupils in a one-teacher school is more largely a matter of the teacher's judgment, together with the advice of the superintendent, than it is in any other type of school. A pupil should be promoted to the next class when he can do the work in it and has completed the necessary work of the years below. This promotion ought to take place at the end of the school year.

a. *To High School.* In the case of promotion to high school the teacher should for the school year keep in touch with the county superintendent and the principal of the high school to which the pupils will go. Such coöperation will establish usable standards of work for the A class, and make it easier for the eighth year pupils who are prepared to do so to take up the new work of the high school.

The planning of the work for the pupils who expect to be promoted from the eighth year should be done a year in advance. As their fitness to enter high school must be certified to by the county superintendent, and in practice is done so on a county-wide examination, the eighth year pupils should be given sufficient practice in organizing and arranging a manuscript for a written examination. This practice should be done in regular classroom subject matter and not be a coaching for examination exercises. But the work of the A class is not review and coaching to pass an examination. It should be in new subject matter. At least half of the credit for promotion to high school should come from the monthly records of the pupils, when there is a high school in their own district. When they become non-resident pupils of a high school they must of course be promoted on the certification of the county superintendent after having been given an examination. The A class might have two or three examinations given each year for practice in preparing manuscript and for the purpose of helping the teacher check up on the weak points in his teaching.

b. *Transfers.* If a teacher takes up the work for the first time in a school she should make no changes in the classification, as given in the record book for the past year, until after thorough trial. In case a pupil is to be admitted from another school he should be given the classification his transfer card calls for. If a pupil leaves for another school he should be given a transfer card indicating the work he has done.

C. USING THE COURSE OF STUDY

The course of study is not a substitute for textbooks nor can it be used as such. As it is herein given it is an outline of the more im-

portant features of the different branches of study that are worthy of study by a majority of the pupils. Some will do much more than is outlined and some will do less. The teacher's work is to select the subject matter so that the more essential features are first studied, together with as many of the details as can be done to advantage.

1. Relation to Textbooks

The textbooks that are adopted in the district should follow the point of view set up in the course of study for each branch. But it will be necessary in planning, to follow the order of the course of study and adapt the textbook to such order and such material as are called for. The textbook is necessary, and part of the work of the teacher is to show the pupil how to use such a book on his own responsibility.

2. Use Through Planning

As pointed out above, the planning should be done in units of two years, indicating what is to come in the even calendar years and what is to come in the odd calendar years. For example, from the suggested material for composition and reading in grades five and six a two years' block of work for the B class can be organized, omitting what cannot well be handled, or substituting what seems to fit the class at the time. The notes inserted in the courses of study in the different branches at the beginning of the two-year blocks of subject matter will help in this planning.

Correlation in the handling of subject matter will lead to much simplification. For example, the greater part of the composition material for the C and D classes has to do with the environment of the pupils. As this environment is set forth in the work for nature study, geography and civics, a proper treatment of these two branches should be regarded as meeting a part of the needs of composition under English.

If the equipment of reference books is what it should be, units of study for the A and B classes, generally spoken of as projects, can be worked out to great advantage. Geography and history are particularly good for work so planned. With these projects drawing, spelling, handwriting, and composition are necessarily correlated.

3. Keeping Accurate Records

The organization for a one-teacher school as set forth above cannot succeed unless accurate records are kept of what has been done. These

records should be completed and placed in the hands of the supervising principal or the secretary of the school board by the teacher.

4. Subjects by Classes and Years

D Class

First Year

Reading
Physical education—hygiene
Nature study
Music
Art
Handwriting
Number exercises

Second Year

Reading
Spelling
Handwriting
Arithmetic
Physical education—hygiene
Nature study
Music
Art

C Class

Third Year

Reading
Composition—spelling
Handwriting
Arithmetic
Geography—nature study
History—civics
Physical education—hygiene
Music
Art

Fourth Year

Reading
Composition—spelling
Handwriting
Arithmetic
Geography—nature study
History—civics
Physical education—hygiene
Music
Art

B Class

Fifth Year

Reading
Composition—spelling
Handwriting
Arithmetic
Geography—nature study
History—civics
Physical education—physiology
Music
Art

Sixth Year

Reading
Composition—spelling
Handwriting
Arithmetic
Geography—nature study
History—civics
Physical education—physiology
Music
Art

A Class

Seventh Year	*Eighth Year*
Reading	Reading
Composition—spelling	Composition—spelling
Handwriting	Handwriting
Arithmetic	Arithmetic
Geography—agriculture	Geography—agriculture
History	Civics
Physical education—physiology	Physical education—physiology
Music	Music
Art	Art

D. NATURE OF THE TEACHER'S WORK

The professional relations of the teacher are set forth in Part Six. But as the majority of one-teacher schools are in districts without supervising principals or special supervisors it is well to study carefully the relation between the teacher and the school board and between the teacher and the office of the county superintendent as therein given. For example, the organization of the school, its grading promotions, examinations, and methods of instruction are joint functions of the teacher and of the county or assistant county superintendent who visits the school. But fixing the calendar for the term, fixing the hours of the school day, responsibility for providing text books, supplies, and equipment belong to the school board. In addition, the teacher has her own definite responsibilities in regard to discipline and instruction, the care of the school property, relation to attendance records, vaccination and quarantine regulations, and her obligations for professional improvement.

There is also a relation to the district that is social as well as professional. A community interest that will stand for well kept and attractive school grounds can usually be secured on initiative from the teacher. Much of the inconvenience arising from questions of discipline may be avoided if the teacher makes an effort to adapt herself to the community, comes to know the patrons, and is sympathetic with their standards of living.

E. SCHOOL EQUIPMENT

The general care of school equipment and supplies is discussed in Part Six. This section should be carefully read. Heating and ventilating, adjusting windows, shades, oversight of drinking water

to keep it sanitary, and seeing that toilets are kept clean are responsibilities of the teacher. But having the property put in order before school opens is a responsibility of the directors. The teacher should urge that this be done before she begins work. The school board should pay for janitor service for sweeping, dusting, and heating in a one-teacher school, but the directing of such service should be done by the teacher. A teacher should go to her district a few days before the opening of school in order to become acquainted with the situation, to see that the property and equipment are all right, and to get in touch with the patrons of the school.

1. Materials and Supplies

a. *Blackboards.* Effective work cannot well be done without good and sufficient blackboards. A one-teacher school should have all available space covered by slate blackboard. These boards should be placed low enough for use by the smaller children. A well-kept blackboard is an indication of a good teacher.

b. *Writing and Art Materials.* There should be enough writing material for both pencil and pen work and it should be economically used under the teacher's guidance. A minimum of art material should be provided to meet the needs of the art course. The suggestions in the introduction to this course on providing art materials should be followed. Much of this material can be used for seat work.

c. *Maps and Globes.* Good single wall maps, physical and political, should be provided. One of these should be a world map, one a United States map, one a State map, and one a county map. A good twelve-inch globe is also necessary. In addition to these there should be one good atlas.

d. *Illustrative Devices.* These will be used largely in the teaching of arithmetic, nature study, and geography. Much of such material can be home-made, except the standard measures in denominate numbers. No better devices for counting can be bought than yellow and red indian corn kernels. Two or three simple microscopes that are inexpensive will reveal a new world to pupils if the teacher can in some way provide them. Pictures illustrating scenery and life over the earth are of great help in giving real impressions.

2. Books

a. *Textbooks.* These should be modern and in accord with this course of study if they are to be serviceable. Each child should have a book to himself. In reading there should be a half dozen sets of supplementary readers, a few of which should be geographic and

historic in character. There should be desk dictionaries for each pupil in the A and B classes.

b. *Reference Books.* Part Five will set forth what is needed. An unabridged dictionary with many supplemental illustrations is needed. One book on quotations will be very serviceable. An anthology of poetical selections is needed. To these should be added as many of the reference books listed in Part Five as can be secured.

c. *Literature.* A portion of the books in literature listed in Part Five should be bought each year. These books should not only be read in school but should be given to the pupils for home reading. The teacher should be very exacting on the care of these books.

3. Responsibility of Boards of Directors

The responsibility for equipment and supplies rests with the board of school directors. It is their obligation to see that the proper tools are given to pupils and teacher and then to hold the teacher accountable for results.

PART TWO

COURSES OF STUDY

PART TWO: COURSES OF STUDY

I. COURSE OF STUDY IN ENGLISH, INCLUDING READING, SPELLING AND HANDWRITING

A. POINT OF VIEW

1. A Definition of English

The School Law in providing for the branches of instruction in the elementary schools of Pennsylvania uses this phrasing: "English, including spelling, reading, and handwriting ....." The course of study in English for elementary schools will be organized to meet this legal definition.

The word English evidently means the language that is to be used by the pupils of our schools in the communication of thought and feeling. It is to be the common tool for gathering information through listening and reading and for giving such information to others through speaking and writing. In other words, English is to be the medium used in organizing experience.

Language must make sense. It must say something that is worth saying and say it so that it can be comprehended by persons who listen or read. Furthermore, the words should be spoken or written in such a way that what is composed will agree with the commonly accepted forms used in speech and writing.

2. General Aim and Scope

The work in English throughout the elementary years embodies the major portion of the child's intellectual life in school. As such life is largely concerned with gaining information and impressions and in learning how to communicate them, the English work should aim to stimulate the child's imagination, to awaken his interest in nature, in literature, in his relation to other persons, and to direct him in organizing, exchanging, and enlarging the experiences that grow out of such interests. The child, not the subject, is to be taught. He must really experience English, that is, he must read English, write English, and speak English.

The work of instruction in English ought to look toward these attainments on the part of pupils:

a. To read miscellaneous printed matter with speed and understanding, to organize what has been read, and to remember what is of most value to the reader.

b. To build up year after year a usable vocabulary that should reach a minimum of two thousand five hundred words. In this vocabulary the aim should be to spell correctly the words that need to be written, to pronounce correctly the words that need to be spoken, and to recognize easily and understandingly the words that need to be read.

c. To learn how to put words together in sentences according to grammatical usage so that they will make sense and to be able to do this in answering questions and in discussing topics.

d. To learn how to compose such ordinary business and social letters as will probably need to be written, and to write them in a legible and firm hand.

e. To have provided for and used by the pupils plenty of good books, both literary and informational.

3. Reading

Reading is using experience in finding out the thought and feeling that have been put into printed pages. It is an art and as such is improved through practice and an enlarged experience. It is not completed at any particular time. It is the basis of ability to study. For this reason it becomes the fundamental branch in the elementary school.

Reading is more than word recognition and word naming. It involves associating ideas in groups and comprehending the meaning of the sentence as a whole. Effective habits should be developed in grasping with ease and accuracy the related sense of the sentences as they follow each other on the printed page. There should also be developed the ability to impart this meaning by reading aloud to a group of listeners.

Pupils should be led to feel that reading is thought-getting; that oral reading is thought-giving, not word saying. They should from the very beginning, be led to work for thought and to express thought —really to read.

The meaning should be secured from the printed page in large thought units. The characteristic of maturity in reading, reading by thought units rather than by word units, should be kept in mind when reading is being taught. But final mature habits in reading cannot be secured by any single route.

By the time the child reaches the fourth year of school he should know how to read print. But he will continue to learn to read throughout the years that follow. He will for the most part be reading for careful study, for needed information, for recreation. All of

this will be silent reading. This type of reading should be emphasized from the first year on.

a. *Mechanics of Reading.* During the first three years the mechanics of reading ought not to be developed more rapidly than is the ability to comprehend what is read. Pupils should acquire the skill necessary to pronounce words without hesitation, but at the same time the meaning of such words should become clear. By the end of the fourth year the child should be able to pronounce accurately words within his comprehension, and should have fairly well established speech habits in reading. From the fifth year on the pupil should be trained in using the dictionary as an aid in pronunciation. Drill on phonics should grow out of learning to read as the need for such drill appears. In addition to words as units in reading, attention should be constantly given to the recognition and announcement of the more common phrases. In short, mastery of reading symbols should be sought from the beginning.

(1) *The Process.* Good reading depends upon the power to get the thought which lies back of the printed page, and this in turn depends upon the power to recognize, understand, and pronounce words. If there is no hesitancy in word-recognition, and if the pupil can take in large eyefuls of words and phrases with short fixation periods in the lines of print, fluent and expressive reading may be obtained with comparative ease.

(2) *Words.* Thought mastery, however, will depend largely upon word mastery since the words are the medium through which the thought is obtained. The child must be taught how to acquire words most quickly, most surely, and most accurately, so that thought may predominate and the mechanical process be kept in the background.

Children must be taught how to grasp not only words but also word groups as a whole. Cards containing words and word groups of frequent occurrence are good for rapid and brief drill periods after some facility in reading has been acquired. Such drills might begin the last half of the first year and continue until the children are familiar with three or four hundred words that make up the bulk of a child's running vocabulary in reading.

The need of a well selected vocabulary cannot be too strongly emphasized. Word study ought to be systematized. An invaluable aid to this important phase of reading is *The Teacher's Word Book* by Thorndike, issued by Teachers College, Columbia University, at sixty-five cents. This list, together with the words selected locally by the teacher after testing the vocabulary of the pupils, will help to solve the important and difficult question of the most essential words to know.

The first five hundred most commonly used words of the Thorndike list are here given by permission of the Bureau of Publications of Teachers College:

a
about
above
across
add
after
again
against
air
all
almost
alone
along
also
always
am
among
an
and
another
answer
any
apple
are
arm
around
as
ask
at
away
back
bad
ball
bank
be
bear
beautiful
became
because
bed
been
before
begin
behind
being
believe
best
better
between
big
bird
black
blow
blue
body
book
both
box
boy
bread
bring
brother
brought
build
burn
but
buy
by
call
came
can
care
carry
case
cause
certain
change
child
children
church
city
clear
close
cold
color
come
company
corn
could
country
course
cover
cross
cut
dark
day
dead
dear
death
deep
did
die
do
does
done
door
down
draw
dress
drink
drive
drop
during
each
ear
early
earth
east
eat
egg
end
enough
even
ever
every
eye
face
fair
fall
family
far
fast
father
fear
feel
feet
few
field
fill
find
fine
fire
first
five
floor
flower
fly
follow
food
foot
for
form
found
four
free
fresh
friend
from
front
full
garden
gave
general
get
girl
give
given
glad
go
God
gold
good
got
great
green
ground
grow
had
hair
half
hand
happy
hard
has
have
he
head
hear
heart
heavy
help
her
here
high
hill
him

himself
his
hold
home
hope
horse
hot
hour
house
how
hundred
I
if
in
into
is
it
its
just
keep
kill
kind
king
know
known
land
large
last
late
laugh
law
lay
lead
learn
leave
left
length
less
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life
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mean
measure
meet
men
might
mile
milk
mind
mine
miss
money
month
more
morning
most
mother
mountain
move
much
must
my
name
near
need
never
new
next
night
no
north
not
nothing
now
number
of
off
often
old
on
once
one
only
open
or
order
other
our
out
over
own
paper
part
pass
pay
people
person
picture
piece
place
plain
plant
play
please
point
poor
power
present
pretty
put
quick
rain
raise
reach
read
ready
reason
receive
red
remain
remember
rest
rich
ride
right
river
road
rock
roll
room
round
run
said
sail
same
save
saw
say
school
sea
second
see
seem
seen
send
sent
serve
set
several
shall
she
ship
short
should
show
side
sight
silver
since
sing
sister
sit
six
sleep
small
so
soft
soldier
some
something
sometime
son
soon
sound
south
speak
spring
stand
start
state
stay
step
still
stone
stop
story
street
strong
such
summer
sun
sure
sweet

table	three	visit	who
take	through	voice	whole
talk	till	wait	why
tell	time	walk	wide
ten	to	wall	will
than	today	want	wind
thank	together	war	window
that	too	warm	winter
the	top	was	wish
their	town	watch	with
them	train	water	without
then	tree	way	woman
there	true	we	wood
these	try	week	word
they	turn	well	work
thing	two	went	world
think	under	were	would
third	until	what	write
this	up	when	year
those	upon	where	yet
though	us	which	you
thought	use	while	young
thousand	very	white	your

b. *Oral Reading.* This is the natural kind of reading in the primary grades. But every oral reading lesson must of necessity emphasize the thought of what is read, or the expression will be neither fluent nor natural. The material should be literary instead of factual. It should consist largely of poetry and stories containing dramatic conversation and action.

Pupils ought to be encouraged to read before an audience, either the regular class or a special group. Such readings should be made by the pupils from selected paragraphs and stanzas from books of special interest to them. Position and voice should be easy and natural. The reading should be marked by fluency, effective phrasing, and distinct enunciation.

Much oral reading of simple selections in the first three grades will help in forming habits necessary to rapid silent reading. From the fourth grade on, the emphasis should swing to the content of what is read in silent study periods.

c. *Silent Reading.* Silent reading is the art of getting the sense from what has been printed. It may be done in reference books for the purpose of securing accurate information, or it may be in the nature of careful study. Again, it may be the casual reading of newspapers, or it may be recreational reading in books of literature. In fact, silent reading is a necessary art in the acquisition of nearly

all the subject matter offered in school and nearly all information and impressions gathered outside of school.

Silent reading should improve noticeably from year to year, beginning with the first school year. By the end of the third school year a pupil ought to be able to comprehend a simple statement of fact. The ability to comprehend what is read should develop rapidly from the fourth year on through the introduction of geography and history.

During the first grades, the silent reading, or study of the sentence or small groups of sentences, should precede the oral reading; in other words, comprehension should precede expression. With the third grade should begin the silent reading of larger groupings of thought.

In the fourth year, the time for silent and for oral reading might be about equal; but in all subsequent grades the time spent in silent reading should be much greater than that spent in oral reading. The silent reading should deal largely with factual material while the material for oral reading should be of a literary character.

(1) *Alertness of Mind.* Alertness on the part of the pupil is the first thing necessary in teaching silent reading. This alertness of mind is greatest when the interest in what is being read is high and when the attention is focused on the printed page. Given the right quality of alertness, the child will learn to read with a high degree of comprehension and at the greatest rate at which he can understand what he is reading. The teacher's principal work then is to help the pupil improve his comprehension and rate in silent reading by improving the character of his alertness.

(2) *Comprehension.* The first thing necessary in improving comprehension is an accurate and rich vocabulary. There must be enough reading in order to bring this about and sufficient books should be provided for the pupils, at least a half dozen books for the classroom and as many more for home reading each year. Pupils should learn to study words in their context and to intelligently use the dictionary in verifying the enriched vocabulary from extensive reading. A second thing necessary is the reading of factual material such as geography and history for the purpose of answering specific questions. In fact the best work in silent reading will be done with exercises based on material most frequently used by pupils in preparing other lessons. A great function of silent reading is to teach children how to study. The practices of rereading material and of making summaries are both valuable aids. Careful preparation of the lesson by the teacher and an intelligent assignment are necessary. Pupils should be encouraged to do voluntary reading in free periods.

(3) *Rate of Reading.* Improvement in rate is of no value to the pupil if it results in careless reading. Rate should keep within the limits of good comprehension. It may be improved within such limits by getting rid of lip movement and by increasing the perceptual span through the use of flash cards containing words and phrases that make the ordinary-running vocabulary which presents difficulties in quick recognition. In the upper grades pupils should be taught to do intelligent skimming when reading reference material in preparing lessons, or in reading newspapers. Experiments have shown that an average silent reading rate for eighth grade pupils is about two hundred forty words per minute. The retention of the essentials of what is read will depend largely on rereading at daily, weekly, and monthly periods; that is, reviews are necessary.

Standard tests, such as Monroe's "Standardized Silent Reading Test," that tests comprehension and rate from the third to the eighth grade inclusive, are very valuable in a one-teacher school, for they will stimulate interest and effort in reading. Other good tests are the Courtis "Silent Reading Test," that tests rapid narrative reading from the third to the sixth grades, the Thorndike-McCall "Reading Scale," that tests ability to comprehend increasingly difficult material from the third to the eighth grades and the Burgess "Scale for Measuring Ability in Silent Reading," that tests the ability to comprehend paragraphs on the same level of difficulty from the third to the eighth grades.

Good instruction in reading, together with the provision of plenty of reading matter, is the most important part of English teaching.

d. *Basal Texts.* A good basal text should be selected for the reading work and should be carefully followed. Many such series of readers are available. If a five-book series is in use, the primer is the basal text for the first year, the first reader for the second year, the second reader for the third year, the third reader for the fourth year, the fourth reader for the B class and the fifth reader for the A class.

e. *Supplementary Reading.* Fluency comes with practice, and the best way to have the child become familiar with words and to have him grow into the habit of thought-getting, will be to have him read a number of books of similar difficulty in each grade. The teacher should have in addition to one book for basal work, a half-dozen other books for supplementary reading. It is a matter of common observation that the pupils who have the greatest power to grasp thought from the printed pages are those who have read most extensively. Children should learn enough about books in order that they can discover knowledge for themselves.

All supplementary readers do not need to be sets. After two or three sets have been purchased, it will be an advantage to purchase more titles with two or three copies of each.

The suggested lists are given in Part Five.

f. *Reading a Book for Joy.* There ought to grow up in the pupils a desire to read books merely for the joy of reading. Some of this joy reading should be provided for in school, and much of it ought to be done at home. Pupils should be helped to a knowledge of books and stimulated to read books of length and of real literary value. Informal and personal conferences between pupil and teacher on what is read and how best to do it are of lasting value.

The school should provide for the pupils a library of at least fifty volumes of books having literary merit. A few additions ought to be made each year.

4. Composition

Composition is the actual communication, by means of speech and writing, of ideas that have been gained through experience. This experience must be continuously enriched by observation, by listening, by reading, and by activities. There must also be abundant opportunity for the communication, in natural situations and for real persons, of such experience as is of interest and value.

All such communication of experience should be done according to commonly accepted standards of usage and standards that are practically attainable by a majority of the pupils. These standards, however, should be flexible. Composition is a continuing process, always capable of further improvement.

Teachers should keep in mind that usage in speech and writing on the part of pupils is nothing more than language habits resulting from continued practice. Such usage has not been formally taught; it has for the most part been caught through imitation. All criticism that is for the purpose of bringing about better habits of expression should be unobtrusive, sympathetic, and stimulating. It should never be so insistent and exacting that it represses. The first object of all work in composition is to liberate ideas and expression.

The teacher should have as a textbook in composition one of the modern ones now available. These generally are in a three-book series. In that case, book one should be used with the C class, book two with the B class, and book three with the A Class. The work should be planned to cover the material suggested in the course of study instead of taking it in the order found in the textbook.

A useful textbook in composition ought to do these things: (1) recognize language as an art to be learned through daily practice and result in correct habits of expression; (2) base the exercises upon experiences of the children; (3) emphasize a usable vocabulary; (4) afford ample opportunity for such practical exercises as letter writing; (5) providing adequate interpretation of literary material for the purpose of developing appreciation by the pupil; (6) give to the teacher usable lesson plans and devices.

a. *Speaking.* Speaking has to do largely with informal conversation, with answering questions, with topical explanations, or with recounting experiences. The ideas involved should be worth while, they should be organized so as to keep the points under consideration, and should be presented in a clear, correct, and courteous manner.

It is unwise to presuppose errors on the part of pupils and as a warning place the wrong form before them in order to drill for its elimination. Each teacher should take a census of the quality of speech used by the pupils and tactfully but constantly try to substitute the correct form. Much of this work must be individual instruction. It should try first to free the child from such gross errors as confusing past tense and past participle forms of verbs or in not having the verb agree with the subject of the sentence in number and person. With the first five grades the right form should be given and should be followed by sufficient examples. With the three upper grades the grammatical reason can be made clear and pupils held to a practical observance of it in their speech.

(1) *Words.* All pupils should accumulate gradually a usable oral and written vocabulary. There is always a right word to use, one that will convey the meaning intended. Words thus selected make the foundation for all effective work in composition. All words used in speaking should be correctly pronounced; that is they should be said with the right phonetic quantities, syllabication, and accent. They should also be said in an agreeable quality of voice.

The Thorndike word list mentioned under the subject of reading will be of use in oral and written composition; so will the thousand words included in the Ayres' spelling scale. But somewhere in the fourth or fifth years the pupil should be taught how to look words up in a dictionary and to get the right pronunciation. Each pupil from the fifth year up should be provided with a desk dictionary.

(2) *Sentences.* A sentence is a unit of thought determined by the sentence sense. This sentence-sense is the ability to know when a thought begins and when it ends. Its possession is the most necessary accomplishment in composition and the most difficult to develop.

In connection with the acquisition of the sentence-sense, habits of correct grammatical usage should be fixed. Careful attention given to this in the earlier years will prevent many gross errors in the use of verbs and pronouns in later years. Pupils who make mistakes in speaking should be encouraged to criticize their own composition. If the use of errors is common in a room a kind of speech conscience should be aroused. In addition to this, abundant opportunity should be given for practice in the use of correct forms. Pupils from the fifth grade up will profit materially through the development of the ideas of subject, predicate, and modifier, and through simple instruction in the recognition of nouns and verbs.

b. *Writing.* What is called written composition in the elementary grades is putting on paper that which has first been composed orally by the children. They need to "think out loud" and find out what they have to say before they put it down. The principal thing is to learn the written form as it is needed, and no faster.

The one kind of writing that should be adequately used as practice is that of letters. There is a real motive in letter writing and a real opportunity for relating, explaining, or describing to a particular person what is of interest. This should begin in an easy way in the third year and be increasingly emphasized through the eighth year.

The punctuation, capitalization, and arrangement of sentences as they are used in written work, especially in letters, will have to be carefully directed.

Writing a simple sentence of direct statement as well as the direct question should be taken up in the third year and be kept at until learned as to form.

Capitalization is not difficult; it is an arbitrary custom and merely needs to be remembered. But punctuation as an aid in revealing the sense is exceedingly difficult beyond the period, the interrogation point, the comma in direct address and with words in a series and the colon for easy summary. The more difficult comma usage and that of the semicolon should not be attempted in the elementary grades. The use of simple and definite short sentences should be encouraged.

Pupils must be supervised when learning to do written composition. Little of it should be done but it should be well done. High standards should be demanded after the pupil has learned how to work at composing on paper.

(1) *Spelling.* As the choice of words has been made orally in the act of composing, the next thing necessary is their correct spelling when written. A pupil should be able to spell all

the words he needs in writing. He will be able to pronounce many words, and recognize many more in silent reading, that he may never need to spell.

The words to be spelled will come under two classes. The first will include from one to two thousand of the more common words that are ordinarily used in writing letters. For this class there should be provided definite instruction in spelling from the second year on. The second class will include the words needed in other branches of study. They should be taught where they occur.

From the many careful studies that have been made of spelling it may be concluded that there is no short cut to this necessary part of written composition. Incidental teaching of words must be accompanied by careful short drill periods that are actual teaching of words instead of merely testing the spelling of them. Rules cannot replace directed instruction.

The words to be learned are the ones that are needed. The ones to be taught first are the ones commonly used in letter writing. Careful spelling should be constantly insisted on in all written work. Particular attention should be given to plurals and possessives. Stress should be put on the necessity of correct pronunciation and syllabication, on attempting but a few words each day, and on each pupil giving special attention to the words he repeatedly misses. The spelling recitation should be a learning period and should be short. There should be frequent review drill periods. A spelling book with a well selected and graded list of words should be used.

These suggestions taken from the *Eighteenth Year Book* will be of help as to the method to be used in actually studying words:

"The first step in learning to spell a word is to pronounce it correctly. If you do not know how to pronounce a word, look up the pronunciation in the dictionary. When you are certain that you know how the word is pronounced, pronounce it, enunciating each syllable distinctly and looking closely at each syllable as you say it.

"Close your eyes and try to recall how the word looks, syllable by syllable, as you pronounce it in a whisper. In pronouncing the word be sure to enunciate the syllables carefully.

"Open your eyes to make sure that you were able to recall the correct spelling.

"Look at the word again, enunciating the syllables distinctly.

"Recall again, with closed eyes, how the word looked.

"Check again with the correct form. This recall should be repeated at least three times, and oftener if you have difficulty in recalling the correct form of the word.

"When you feel sure that you have learned the word, write it without looking at the book, and then check with the correct form.

"Repeat this two or more times without looking either at the book or at your previous attempts.

"If you miss the word on either of these trials, you should copy it in your spelling notebook, since it probably is especially difficult for you."

The teacher should secure a copy of the Ayres *Measuring Scale for Ability in Spelling* that can be had from the Russell Sage Foundation, 130 East 22nd Street, New York City for ten cents. This will be of great help in selecting words and in rating the standing of the children in spelling.

Interesting lists of commonly misspelled words have been worked out. The following list is one of the best and is well-known as the "One Hundred Spelling Demons" as selected by Professor Jones of the University of South Dakota. Practically all of them are found in the second, third and fourth grade lists.

which	does	forty	coming
their	once	hour	early
there	tired	trouble	instead
separate	grammar	among	easy
don't	minute	busy	through
meant	would	built	break
business	can't	color	buy
many	sure	niece	again
friend	loose	raise	very
some	lose	straight	none
been	Wednesday	says	week
since	country	having	often
making	February	just	whole
dear	know	doctor	won't
guess	could	whether	cough
used	seems	believe	sugar
always	Tuesday	knew	shoes
where	every	laid	enough
women	they	tear	truly
done	half	choose	ache
hear	wear	any	tonight
here	answer	much	hoarse
write	two	beginning	said
writing	too	blue	wrote
heard	ready	though	read

(2) *Handwriting.* There should be provision for specific, directed practice of from ten to fifteen minutes each day. Insistence on position, movement, and legibility should be strict. A balance should be maintained between form and speed. A system of medium slant, without flourishes, is to be preferred. The style developed should be individual, neither too careless nor too precise, neither too large nor too small, neither too fast nor too slow. All written work should meet the standard of excellence set forth in the writing class. A written page should be neat, well arranged, and legible.

The position should be squarely in front of the desk with the paper directly in front of the writer and tilted to the left. The penholder should be grasped loosely and the forearms should rest on the desk for about three-fourths of their length. A combination movement of the arm and fingers should be used. Left-handed children should use the left hand.

A balance should be maintained between form and speed.

The teacher will be greatly aided in the handwriting work if she secures a good handwriting scale and puts it where pupils may compare and evaluate their own efforts. The "Gettysburg Edition" of *A Scale for Measuring the Handwriting of School Children* can be secured from the Russell Sage Foundation, New York, for ten cents.

Legibility is the real aim in handwriting.

5. Literature

Literature is included in the course of study for purposes of mental and emotional stimulation. Through it pupils can broaden the horizon of their experiences. Reading is the one form of entertainment that is within reach of all persons, wherever they may chance to live. It is a strong factor in all personal growth.

Literature can not be taught in the sense that spelling and handwriting can be taught. But children can be introduced to it. The right kind of literature should be provided. If a teacher uses a method something like this she may induce pupils to like good books:

Read an interesting selection aloud at the "long breath," pausing now and then to indicate a passage of particular beauty, repeating the line before proceeding.

Put up a child to continue reading the selection, then another child, and another. Do not interrupt the pupil while he is reading —set him right afterwards.

At the close of the exercise invite questions on puzzling points and run back over important points that have escaped the pupils.

The teacher will be greatly stimulated and helped in handling the work in literature, especially in the upper grades, by reading *What Can Literature Do for Me* by Alphonso Smith, published by Doubleday, Doran Company.

a. *Reading Books.* More books are needed for children's reading than ever before, and there are more good ones from which to select. More time should be diverted to joy reading, especially during the winter season. Every one-teacher school should add to its library a minimum of one new book of literature each year. That one should be the book that takes the John Newberry prize for the best children's book for the year. To the one new book should be added two standard older books each year.

Pupils should be encouraged to read books in vacant time at school as well as in spare time at home. Teachers should tactfully

work to get all pupils started in the reading habit. Reading aloud by the teaching of brief and interesting portions of books will often stimulate pupils to find out more about the story through reading the books themselves.

Pupils must be taught how to use and respect books. They should be shown how to open a book for the first time, how to turn the leaves, how to sit in a comfortable position in good light, and how to keep the book clean and attractive.

b. *Telling Stories.* The ancient art of story telling can arouse the interest and sharpen the perception of practically every child. The first concern of story telling is one of literature and not one of language. Every child ought to possess a generous amount of the traditional fables, folk tales, and legends of the nations. The story hour should be one of joy in which the desire to know more of story books is stimulated. A good guide for the teacher is a bulletin entitled *Stories to Tell Children* that can be secured from the Carnegie Library of Pittsburgh for fifty cents.

c. *Learning Poetry.* Every child should get as much of beauty and truth from poetry as he can. He should be led to absorb the thought and feeling beneath the figurative language. All pupils should learn poetry by heart. This should apply to songs as well as to the poems suggested in this course of study. All poems herein listed can be found in *The Home Book of Verse for Young Folks,* compiled by Burton Stevenson and published by Henry Holt and Company, New York. This should be in the school library.

B. OUTLINE OF GRADED SUBJECT MATTER BY YEARS

FIRST YEAR

Note: In the D Class the time should be divided between the first and second years as separate groups for teaching reading. The work in literature ought to be planned for both years together, selecting at random from what is outlined for the two years. The composition work in conversation, reproduction, and common usage should be planned from the outlines for both years for a combined class. The work outlined in nature study and civics should be taken as material for composition work and incorporated in the planning.

1. Reading

The blackboard is the first best agency in beginning the work in reading. A good basal system of reading is needed to simplify the work of this and the following year. In addition to readers of the

basal system, a child should during this year, read five or six additional primers or first readers.

a. *Material.* The material used for the beginning work in reading should be based on the interest and knowledge of the children.

The words dealing with the ideas involved in play activities, in interest in animals and pets, and in what people do in the neighborhood should be used in teaching from the blackboard. Neat and skillful crayon work in writing and in using simple line illustrations, will stimulate a desire in the children to learn to read. These blackboard lessons ought to be thoughtfully planned.

(1) *Words.* For the first few weeks the words recognized by sight from the blackboard should be the basis of the reading work. To these may be added later words taken from the reading material of the basal book and used on the blackboard for purposes of drill.

Phrases play an important part in skillful reading. From the first, pupils should be drilled in recognizing and saying common phrases.

(2) *Phonetic Drill.* Phonetic work should not be given until the children can feel its need and value, probably at the end of about six weeks' work on sight words. They should be led to find new sounds from known words and to form the habit of seeing known parts in a large unknown, and of quickly putting these parts together to find the unknown. This process ought to result in the real purpose of such drill, to help to make the child independent in recognizing new words.

It should be remembered that phonetic exercises must be made a means and not a mechanical end in themselves in word recognition. Such exercises should be given in short and vigorous drill periods from the blackboard or from special charts or cards.

(3) *Sentences.* Children should be led from the start to recognize the sentence as the unit of thought and therefore of expression. Sentences must be short and within the range of the children's experience. The common phrases should be taken up along with words and used in helping to build up sentences.

b. *Method.* The teacher should first of all make a skillful use of the blackboard. Such work needs careful planning and should be done in script. A primary reading lesson consists of two parts—a word and phrase drill, and a reading practice or sentence drill. At first, both of these can be done to great advantage from the blackboard. Later, the word drill alone need be done in that way.

When beginning the sentence work on the blackboard, the teacher should write easy sentences from words the children know. The work herein given from Thorndike's list will be very suggestive. The sense of what is written should be talked about. The sentences should

be reviewed and new sentences added. All new words should be developed through objects, pictures, or conversation before being used in sentences.

(1) *Silent Reading.* A silent study should always precede any attempt to read sentences aloud. A child should know the thought before he tries to tell it.

When a child is first given the primer he should be carefully instructed in how to hold and to look at so difficult a tool. Plenty of time should be taken in developing right habits of looking at a printed page and learning to follow sentences without undue eye strain. The child's position in relation to the light in the room should be carefully directed by the teacher.

(2) *Oral Reading.* When a child reads orally he should read for some one—teacher, pupils, or other persons. As he must make his audience hear and understand he must learn how best to use his voice, to enunciate distinctly, and to pause properly in phrasing.

(3) *Seat Work.* Material for word building and sentence building should be provided and used. During the last half of this year pupils should be given supplementary reading books, to read on their own responsibility, for short periods daily.

2. Literature

a. *Stories to Tell.* The teacher in this year should cultivate herself in the art of story telling. She needs to read many stories, and different versions of the same story, and to possess several good collections of stories.

"Story telling is a simple art. In each story the situation must be realized, each scene visualized, the underlying thought apprehended, every emotion and thought transition conceived, and the characters made real acquaintances."

Practically all of the stories listed here and in following years can be found in the books suggested for the school library. The teacher should known these books: *Aesop's Fables,* Grimm's *Household Tales,* Jacob's *English Fairy Tales,* Thorne-Thomsen's *East of the Sun and West O' the Moon, Arabian Nights,* Bulfinch's *Age of Fable,* Anderson's *Fairy Tales*

From the following suggestive list at least one story might be used for reproduction and dramatization each month:

Aesop—The ant and the grasshopper
Aesop—The cat and the mouse in the malt house
Aesop—The dog and his shadow
Grimm—The elves and the shoemaker
Aesop—The fox and the grapes

Aesop—The frog and the ox
Jacobs—Henny-penny
Jacobs—Johnny-cake
Aesop—The lion and the mouse
Perrault—Little Red Riding Hood
Jacobs—The old woman and her pig
Thorne-Thomsen—The three billy-goats gruff
Jacobs—Three little pigs
Jacobs—The three bears

b. *Poems for Learning by Heart.* From the following list of poems one a month might be selected for the children to learn. The teacher should familiarize herself with the ones she selects. The poems should be presented orally. The child should be taught time, pauses and quality of voice in saying them:

Blake—Little Lamb, who made thee?
Field—Wynken, Blynken, and Nod one night
Rosetti—The city mouse lives in a house
Stevenson—My bed is like a little boat
Stevenson—I have a little shadow
Tennyson—What does little birdie say?
Unknown—Teach as many of the nursery rhymes from the first twelve pages of *"The Home Book of Verse"* as you can. Begin with these rhymes.

c. *Recreational Reading.* Well made and well illustrated books ought to be available to children, even in this year. Copies of them should be placed in the library for the school. Pupils should be taught how to handle with care such attractive books. They should be given opportunity, during school hours, to "puzzle-out" what they can, and it will be surprising how much they will gather from the pictures and the print. The book list for recreational and supplementary reading is given under Part Five.

3. Composition

a. *Conversation.* This should be made up of asking and answering simple questions about things of interest in connection with the home and school environment.

Play interests, correlation with other subjects of study, how we help mother, how to eat politely, are examples of topics of this type. All of these are much used in the study of all the subjects of study. As a matter of fact, the expression of thought in good English is a concomitant of every subject of study.

b. *Reproduction.* This can easily be overdone as a language exercise. Its value is very limited compared to a child's effort to recount his own experiences. It must be remembered that the value of reproduction as related to story literature is much greater.

c. *Talks before the Class.* The child of his own accord should tell in several simple sentences what he sees in a picture or what interests him outside of school.

d. *Common Usage.* Attention should be given to such matters relating to English as the following: Voice qualities, pronunciation, right forms of pronouns, right forms of verbs, right choice of words. Cultivate a use of the right forms. Class drill on gross errors made by a part of the children is of doubtful value. Correction of such errors is largely an individual matter and should be done with tact. The effort for correct usage should be positive and should not emphasize the incorrect form by too many cautions and by calling too much attention to it. Yet prevalent speech errors in the school can with profit at times be made the subject of special group drill.

Common usage in the beginning and ending of a sentence as a unit of saying something should be pointed out from sentences placed on the blackboard and from the sentences on the pages of the primers.

4. Spelling

Spelling should be incidental in this year, practically no attention being given to it during the first half of the year. The spelling list should include common words, largely nouns, of one syllable, that are phonetic. The spelling should be oral.

5. Handwriting

Handwriting is of minor concern for this year and should not be forced. What is attempted should be done largely at the blackboard, the letters should be large, and the larger muscles of the arm brought into play. It is from the blackboard that right perception of forms of letters is acquired and where performances should first be attempted. A model alphabet should be kept on the blackboard.

SECOND YEAR

1. Reading

a. *Material.* The material for this year should be along the lines indicated for the first year, with a marked enlargement of sight and phonetic words and a marked increase in comprehension and the oral expression of sentences.

(1) *Words.* Brief, vigorous, and systematic drill periods in phonetics should be given as needed. The teacher must determine the nature and extent of such drill. This exercise should bring about clear pronunciation in reading. There should be an accurate study of the meaning of all new words and practice given in saying new but common phrases.

(2) *Books.* In addition to the readers of the basal system five or six supplementary books, of literary selections should be read.

b. *Method.* Word drill for both meaning and pronunciation should be given before silent study and oral reading are attempted. The grouping of words into phrases should also be pointed out.

(1) *Silent Reading.* This phase of reading should take up nearly half of the reading time and should precede the oral practice. The child must comprehend the meaning of words used in sentences before trying to express such meaning. There should be much practice in this so that the child may pick up the ability to read books with ease and pleasure. Give attention to care of the eyesight and to a proper position for the book.

(2) *Oral Reading.* This should be done for a particular person or group to listen to. A clear and properly pitched voice, together with distinct enunciation should be developed. Effort should be made to secure fluency with a careful regard for phrasing. A position that will lead to easy breathing and natural voice production should be cultivated. A disciplined attention has much to do with oral expression.

2. Literature

a. *Stories to Tell.* Follow the suggestions for the first year and select stories from the following list:

Aesop—Androcles and the lion
Aesop—Belling the cat
Grimm—Brementown musicians
Bulfinch—Ceres and the springtime
Perrault—Cinderella and the glass slipper
Kipling—The elephant's child
Grimm—The fisherman and his wife
Aesop—The fox and the stork
Grimm—Hansel and Gretel
Aesop—The hare and the hedgehog
Jacobs—The history of Tom Thumb
Thorne-Thomsen—The lad and the north wind
Aesop—The lark and her young ones
Perrault—Sleeping Beauty

b. *Poems for Learning by Heart.* Follow the suggestions for the first year:

Allingham—Up the airy mountain

Allingham—Ring-ting! I wish I were a primrose
Blake—Little lamb, who made thee?
Browning—The year's at the spring
Field—Have you heard of the sugar plum tree?
Stevenson—The lights from the parlor and kitchen shine
Stevenson—When I was sick and lay a-bed
Tennyson—Minnie and Winnie slept in a shell
Tennyson—Sweet and low, sweet and low

c. *Recreational Reading.* Follow the suggestions for the first year.

3. Composition

Advance in a marked degree should be made during this year in both the ease and the fluency of conversation; in keeping to the theme in reproduction; in talking in a more orderly way about what has been seen, heard, or read; in knowing when a sentence begins and when it ends; and in learning to speak in agreeable, distinct voice, with the idea in mind that some one is listening and wants to understand.

a. *Conversation.* The effort to secure the asking of courteous questions and the answering of the questions asked should continue. As in the first year, the material should be drawn from the home and school environment and from what is required for this year in the other branches of study. Composition is being done when pupils learn about the food and habits of animals, about rain and snow, about food and habits of play that keep boys and girls healthy, about how people live and what they do, and about the way objects look and feel; that is, when they are doing what is to be done in nature study, the social studies, health, and art. Interesting material may also be found in pictures and in the observance of holidays such as Thanksgiving and Christmas.

b. *Reproduction.* The material in the stories outlined under literature and in the readers may be used for occasional reproduction. The child should be encouraged to face the class, to talk in distinct and pleasing tones, and to make his story interesting by the way it is told. Several pupils might take part in the telling of a single story. Reproduction should not be used frequently, not over three or four times a month.

c. *Talks before the Class.* The child should be urged to stand before the class and tell in a few sentences some experience he has had and that he would like to have the other children know.

d. *Common Usage.* The statement for the first year should be reread. Careful attention should be given to pronunciation. An account should be kept of the errors heard and then individual correc-

tions made as far as the time will permit. Some class exercises for eliminating the more general errors should be devised. The children should be urged to take pride in saying things in the right way and with the help of the teacher take part in criticizing their own work.

The punctuation of the beginning and ending of a simple sentence or question should be taught through copying. The use of capital letters in the name of a person should also be pointed out. Much of this should be blackboard work.

4. Spelling

Pupils begin to use in this year many of the difficult short words used later in written composition. The words should be selected from a well graded list and from the common words used by the pupils. In addition to the phonetic words the list will contain a number that are not spelled as they sound. Three or four hundred words should be selected and two or three new ones studied a day as to spelling and use in sentences. There should be some written spelling introduced. Syllabication should be used in the oral spelling. There should be frequent reviews. The teacher should keep a list of words that are troublesome for the class.

5. Handwriting

During this year, fully half of the writing should be done at the blackboard. Definite forms of letters should be taught. Definite instructions should be given on position, making it clear that a pupil cannot write to advantage unless he is in position. The periods should be short. The letter and word forms at the blackboard should be large and free and done by the arm movement. By the end of this year a pupil should be able to write his name, to write words from dictation, and to copy short sentences. Writing should not be used as seat work.

THIRD YEAR

Note: In the C Class, the time should be divided for separate drill work in reading for the third and fourth years. Reading is the most important work for these years. The years should be combined for work in composition, including spelling. Selection of material, if complete alternation is not used, should be freely made from both years of work in common usage, reproduction, conversation, and writing. In this case, however, a careful plan for two years would have to be made. The planning should incorporate material from history and civics as outlined in the graded work for these branches. All work in literature can be done together with free selection from the material for both years.

1. Reading

a. *Material.* The blackboard should continue in use as an aid in word study and in giving to the class questions to be used in the silent study of the reading lessons. The supply of books for practice should be very liberal for this year.

(1) *Words and Phrases.* Short, systematic, phonetic drills should be used occasionally to develop habits of quickly recognizing words by means of their phonetic elements and for familiarizing the pupils with the common diacritical marks. Continued attention should be given to the meanings of words as used and to the sense of idiomatic expressions. Drill, by means of flash cards, on words and phrases is very important.

(2) *Books.* In addition to the book of the basal reading system for this year, five or six supplementary readers should be read. The material should be drawn largely from literature. Some factual material relating to history and geography should be used for drill in comprehension and speed.

Pupils should have free access to supplementary reading material at all times. Books for recreational reading should be accessible to pupils at stated times. These should be supplied by the school authorities.

b. *Method.* Attention should be given to the careful planning and assigning of the reading lessons. The teacher should keep these questions in mind: How can I secure better comprehension of printed matter and stimulate better oral expressions? How do I assign a lesson? Effort should be made to bring about (1) independence in word recognition and (2) expression in thought units.

(1) *Silent Reading.* About half of the time should be given to the silent study of reading in which a right attitude toward printed matter is developed, the alert questioning attitude that leads toward understanding and appreciation. **More reading matter** of an informational nature drawn from geography and history should be introduced in this year. The understanding of such matter is best revealed by answers to specific questions and by pointing out the important ideas of the selection. A thoughtful discussion of this question is given in the *Eighteenth Year Book.*

(2) *Oral Reading.* This should be preceded by silent study and by word drill. Emphasis should be placed on proper phrasing and pauses, especially in poetry, and on the quality of the voice as it fits the selection. At times, the teacher should read to the class as an example of what is wanted from them. Much of the oral reading done by the pupil should be so organized and conducted that they get the impression that they are reading to a real audience. If this is difficult to do with the regular readers, encourage pupils on occasion to bring suitable selections to read to the class.

2. Literature

a. *Stories to Tell.* Though use may be made of story reproduction as an occasional language exercise, the real purpose of the story is to secure appreciation of story literature. Use as many stories as possible from the list:

Aesop—The crow and the pitcher
Aesop—The town mouse and the country mouse
Aesop—The wolf in sheep's clothing
Anderson—The Snow-queen
Bulfinch—Pandora and her box
Grimm—Snow White and the seven dwarfs
Grimm—Hans in luck
Harris—The tar baby
Jacobs—Tom Tit Tot
Jacobs—Dick Whittington and his cat
Kipling—How the camel got his hump
Perrault—Beauty and the beast
Thorne-Thomsen—East o' the sun and west o' the moon
Thorne-Thomsen—The princess on the glass hill

b. *Poems for Learning by Heart.* The teacher, after she has come to know the poems for this year, might read to the children, asking them to choose what is to be learned. Special attention should be given to the right tone of voice, the right time, and a right observance of the poetic pause in order to avoid sing-song. The repeating should be done individually.

Allingham—Good-bye, good-bye to summer
Coleridge—You ask what the birds say, the sparrow, the dove
Field—The gingham dog and the calico cat
Holland—There's a song in the air
Shakespeare—Over hill, over dale
Stevenson—I saw you toss the kites on high
Stevenson—At evening when the lamp is lit
Tennyson—When cats run home and light is come
Tennyson—Summer is coming, summer is coming

c. *Recreational Reading.* In addition to having the books listed under Part Five available, the pupils should be urged to purchase a favorite one or two books from their own savings. An interesting short reading, without comment, from a good book and then placing it on the shelf may induce a reading of it. Opportunity should be given in school hours for some recreational reading, but pupils should be urged to take the books home.

3. Composition

During this year children should learn to gather ideas through careful listening, especially to explanations by the teacher; to think

carefully on how the sentence is to be said and to say it in natural and distinct tones; to begin recognizing an order in which sentences should be said; to develop interests in particular things and to want to tell the class of such interests; to write, according to the form that has been learned, a few related sentences on some topic of personal interest.

Pride should be aroused in doing well the English exercises. Children in this and in the preceding years respond to the assurance of the teacher that certain forms are arbitrarily used because they are right.

a. *Talking.* There should be a marked development in the ability to use oral expression. At least three-fourths of the time should be given to this phase of the work.

(1) *Conversation.* Conversation should be made a stimulus to the gathering of ideas through careful observation, listening, and silent reading. The material outlined for this year in the other branches—home life, community life, nature, school life, games, recreation—should be used. Conversation should be informal, with a courteous regard for all concerned. The informal question and answer should be emphasized.

(2) *Talks Before the Class.* These should consist first, of the answer to a direct question relating to subject matter that has been studied or in explanation of something that the child knows from experience. In the second place, they should consist of topical discussions before the class of things of personal interest that have been learned in or out of school.

(3) *Reproduction.* The stories listed under literature and those found in the reading lessons can be used. The story interest should not be lost in the language features. Stories of historic interest should also be used. Each child should have something definite to contribute—something not known to all others in class.

(4) *Common Usage.* A knowledge of right form must come through use of the right form. There should be much positive context. The incorrect form should not be kept in a negative way before the children as a warning. Insist on complete simple sentences. Discourage the "and" habit.

Carefully worked out exercises ought to be provided in correct use of verb and pronoun forms, and in the correct choice of prepositions.

b. *Writing.* Nearly all written composition should be done at the blackboard. It should include copying, writing from dictation, and writing a few connected sentences on a very familiar topic.

Technical usages in written work should cover the period at the end of a sentence and after Mr. and Mrs.; the interrogation point

after a question; capital letters to begin sentences and all names, including the months and days of the week; and (as far as possible) the form used in writing letters.

The letter form, such as a few sentences to thank some person for a present, should be attempted with the chief concern as to how it is to be put on the sheet of paper.

4. Spelling

This year is rich in new words. At least three to four hundred words should be learned. They should be selected from the readers and from the more important words used by the pupils in talking about home and community life. The teacher and children should keep a notebook of troublesome words and should test out all words before using them. Pronunciation should be distinct and accurate. Drill should be given in syllabication. Difficult words from the former years should be reviewed. Pupils should be taught how to study words to advantage. Meanings should be made clear by using words in sentences. For this and the following three years pupils will need to learn a number of commonly used proper names such as Thanksgiving, Washington, and Pennsylvania. Probably the list will not exceed a hundred words. It should fit each community by including the names of a few places and persons.

5. Handwriting

Handwriting with pen and ink should be introduced gradually during the year. Here is the place to begin fixing effective writing habits. Habits are of as much importance as is form. The pupil needs to learn how to use pen, ink, paper, blotter, and not to do it until he is in right position. Much writing should be done at the blackboard. By the end of the year, the pupil should be able to write well his name and address and to write down by copying or from dictation short sentences. A medium slant system should be used, one that is free from flourishes and shading and that is firm enough in its form to prevent scrawling.

FOURTH YEAR

1. Reading

a. *Material.* The subject matter of geography and history will furnish reading material as well as that found in the basal and supplementary reading books. In addition to this book material, effective work should be done in fixing a knowledge of diacritical marks and in learning to apply them in an easy way in the use of the dictionary.

As a major aim in teaching reading in this year is the broadening of imaginative experience through extensive silent reading; plenty

of reading matter should be provided. Pupils must learn to read the better books of literature for pleasure as well as to learn how to read intensively for specific study.

b. *Method.* The suggestions given in the third year should be continued here. Pupils of the fourth, and higher years, have many opportunities to read orally during the course of the day's work. It is the fourth and the two succeeding years that pupils should spend a great part of the regular reading period in the practice of silent reading under the careful guidance of the teacher. Informal tests of comprehension and silent reading rate should frequently be given. In addition, pupils should be trained in dealing with reading matter of an informational character. The purpose of such practice is to get the real content of printed matter and to get it quickly. Time records, as set forth in standard tests, might be used in this reading practice.

In the effort to get the thought quickly and accurately from print, so important an accomplishment as being able to get accurately the thought from hearing some one read aloud, should not be neglected. Listening is not a by-product of oral reading; it is a necessary part of it. There must be real audiences, those who listen as well as those who read.

Informational reading must not be overdone in this year. Children have a first right to imaginative literature. The joy of imaginative adventure is as essential to mental growth as is the information acquired by study.

2. Literature

a. *Stories to Tell.* Pupils should be encouraged to read the stories listed for this year, and opportunity should be given to the ones who are well prepared to do so to tell stories of their own choice before the class. Each pupil should learn about a half-dozen stories for the year.

Arabian Nights—Alladin; or the wonderful lamp
Aesop—The Arab and his camel
Perrault—Beauty and the beast
Thorne-Thomsen—Boots and his brother
Anderson—The discontented fir tree
Arabian Nights—The enchanted horse
Grimm—The fisherman and his wife
Aesop—Hercules and Minerva
Aesop—The man, the boy, and the donkey
Hawthorne—Miraculous pitcher
Anderson—The real princess
Anderson—The nightingale

Kipling—Rikki-Tikki-Tavi
Anderson—The ugly duckling

b. *Poems for Learning by Heart.* For this and the two following years pupils should be taught to memorize poems from frequent rereadings instead of verbally by lines and stanzas. But the poem ought first to have been presented aloud to the class by the teacher and the imagery and meaning made clear. The subject is well discussed in *Teaching Poetry in the Grades* by Haliberton and Smith, published by Houghton Mifflin and Company. Each pupil might learn a half-dozen poems from this list:

Blake—Tiger, tiger burning bright
Bryant—Is this the time to be cloudy and sad?
Beeching—With lighted feet, hands still
Garland—Do you fear the force of the wind?
Hogg—Where the pools are bright and deep
Herrick—Fair daffodils, we weep to be
Rands—Great, wide, beautiful, wonderful world
Thackeray—There lived a sage in days of yore
Wordsworth—The cock is crowing

c. *Recreational Reading.* Follow the suggestions for the third year. Every pupil should read a half-dozen books from the suggested list given under Part Five. He should be encouraged to talk about what he has read.

3. Composition

This year should bring increased ability in gathering ideas from observation, listening, and silent reading and presenting them in a connected, orderly way before the class. The pupils should develop an eagerness for self-expression. Tact should be used in leading them into habits of talking to the point, pronunciation, and the choice and use of words. The principal emphasis is on oral work.

a. *Talking.* The material for the oral work should be drawn from experience, from reading, and from the other branches of study, especially from history and geography. Practice in using such material should be given in making answers to questions, in the discussion of topics, or in reproducing stories or incidents. Club activities are of value in furnishing material for talking that is natural and worth while. Insist on complete sentences in all exercises that make up a recitation.

All answers ought to be specific and keep to the question asked. Pupils should be urged to select their own titles for talks before the class and plan what they have to say. Criticism should always be tactful and stimulating and free with commendation. The bash-

ful child must be led to make effort and to believe that he will improve by trying.

b. *Writing.* The material here should be the same as that used in talking. Emphasis should be placed on the sentence idea—when it begins, when it ends, and how to punctuate it. The exercises should keep largely to simple sentences. No more by way of accomplishment than a brief paragraph practically free from misspelled words should be expected. Contractions and abbreviations should be taken up as needed and the apostrophe for the possessive singular should be taught. Much of the work should be done at the blackboard. Let pupils help in class criticism.

The letter form may be used for much of the written work. The pupil will have in mind a particular person to whom he is going to write. That will be a real incentive. The right form in which to put the letter on paper should be taught. To arrange and punctuate a letter of one or two paragraphs is enough to attempt in this year.

c. *Common Usage.* As in the third year, specific drill should be given in the correct forms of verbs and pronouns and in the right choice of prepositions; but it should be in sensible and interesting context and should avoid magnifying the incorrect form.

The teacher should be alert in directing the pupils' use of these and other troublesome words: saw, seen; can, may; done, did; was, were; don't, doesn't; lay, lie; give, gave; went, gone. Give the right form in this year and later give a grammatical reason if needed.

Effort should be made to secure a natural quality of voice, distinct vowel production and enunciation of final consonants, and a correct syllabication. Limited instruction might be given on how to get help on the pronunciation and use of words from the dictionary.

4. Spelling

For this year an additional list of from three to four hundred common words used in written composition should be learned, together with the particular words used in the written work of the other branches. The difficult words of the two preceding years should be reviewed. Instruction should be given on how to study words to advantage. The meanings of the words should be fixed by their use in sentences. The particular proper names that are needed should be learned. A good modern spelling book could be used to advantage.

5. Handwriting

The effort for correct habits of handwriting should be continued. Correct position and alert attention should be secured before writ-

ing is attempted. Movement and speed need attention as well as does form. All written work should aim to be as well done as is that of the drill writing period. By the end of this year a pupil should be able to copy short paragraphs and stanzas neatly, accurately, and arrange them well on a sheet of paper.

FIFTH YEAR

Note: In the B class the fifth and sixth years are to be combined in all work in English. If a five-book series of readers is in use the fourth reader should be the book for drill with this class. In composition, both oral and written, the material may be used by alternation. If the teacher prefers, and plans ahead carefully for two years, material may be freely selected from either or both of the two years of graded work.

1. Reading

The importance of wide reading for this year should be recognized and provisions made for it. The habits developed should come from the subjects as well as from literature.

a. *Material.* The basal reader, supplementary readers, the dictionary, reference material, and the literature for recreation purposes —all need to be used.

Pupils should be trained in using books of an informational character, especially by means of indexes and tables of contents, with fair speed and judgment as to what is being read.

Geographical and historical readers are of use in this year, but supplementary readers with a fair proportion of literary material are also necessary.

b. *Method.* Reading in this grade ought to move along with rapidity and zest. Before a new story is taken up enough time should be spent on it to awaken interest. Preparation should be made on proper names and other words needing explanation.

Pupils should be encouraged to read aloud at home and to master favorite selections for reading before an audience. Special attention should be given to the right reading of poetry—voice, time, pauses. There should be regular periods for instruction on reference reading for information.

2. Literature

a. *Stories to Tell.* These stories are to be used with the B class for their value as oral literature and not as material for language

reproduction. The stories should not be altered or their standard lowered.

Arabian Nights—The Barmecide's feast
Bulfinch—The golden fleece
Hawthorne—The great stone face
Ruskin—The king of the golden river
Scudder—History of Fortunatus
Brown—Idune's apples
Thorne-Thomsen—Princess whom no one could silence
Bulfinch—Pegasus
Kipling—Red Dog
Pyle—Robin Hood and the golden arrow
Arabian Nights—Sinbad's second voyage
Arabian Nights—The talking bird
Brown—Thor's journey to Jotunheim
Kipling—The white seal

b. *Poems for Learning by Heart.* Have all pupils of the B class learn a half-dozen poems from this list:

Browning—I sprang to the stirrup
Collins—How sleep the brave
Cunningham—A wet sheet and a flowing sea
Emerson—By the rude bridge that arched the flood
Emerson—Hast thou named all the birds without a gun
Holmes—Ay, tear her tattered ensign down
Longfellow—It was the schooner Hesperus
Tynan—Of all the birds from east to west
Riley—When the frost is on the punkin'
Shelley—Hail to thee, blithe spirit
Wordsworth—I wandered lonely as a cloud
Shakespeare—Under the greenwood tree

c. *Recreational Reading.* Effort should be made to increase the volume of reading for this year. Pupils should be urged to read at least a book a month during the winter, selected from the list in Part Five.

3. Composition

The ability to gather information and to express it in speech and writing should increase in a very marked degree during this year. The pupil should develop a pride in speaking in a pleasing and interesting manner. He should learn how to handle the dictionary in checking up his use of words. The simplest sentence should become fixed as a unit of expression.

a. *Talking.* A fair portion of the time for this year should be given to oral work.

(1) *Material.*—The material should be drawn from sources of interest to the pupils—activities, including sports, personal

experiences or desires, reading and imaginative experience, and from the other branches of study. An oral recitation in geography or history should be regarded incidentally as a language exercise; that is, as an exercise in organizing and expressing thought in approved form. The organization of personal experience into compositions, oral or written, is the specific work of the composition period.

(2) *Method.* Pupils should be taught how to select topics from their own experience. They may want to tell how they have done something, how they have watched something being made, or how they have seen something happen. They should be taught how to organize and plan the particular things they want to talk about. To this end definite instructions should be given in this and succeeding years in the construction of an outline in oral and written composition work. At first, the outline should be simple in form, involving subheads of but one degree of subordination.

The talk should be personal and concrete, should use specific words, and should move along with vigor. The pupil should stand erect and make himself understood.

All criticism on the part of the teacher should be pointed and stimulating. The criticisms by the class should be specific suggestions for improvement. Self-criticism on the part of the pupil will be most fruitful of all. A common terminology including grammatical terms relating to words and sentences should be used. When a child uses an incorrect form, the teacher should give him the correct form, and the grammatical reason also if he can understand it. He should be sent to the dictionary to look up pronunciation and the exact meanings of words.

b. *Writing.* Free use should be made of the blackboard for frequent and short-paragraph compositions and for writing from dictation. One worth-while effort a week on paper ought to be sufficient. Much of the paper work should be done in the form of letters to real people.

(1) *Material.* The material indicated under the outline for talking should be used here. All written discussions in geography or history should be done to meet the standards of the English class. The brief, exact explanation needs to be frequently used on the blackboard.

The material relating to punctuation and correct usage in word forms is to be found largely in the actual writing of the pupils. In this year, the necessary punctuation of a letter should be drilled on. The use of quotation marks in conversation might be observed and reproduced from dictation.

Pupils should begin to gain an acquaintance with the terminology of grammar. Through capitalization of the names of persons and places, the distinction between common and proper nouns may be made clear. Through correcting common misuse in number, the singular and plural forms may become known and the possessive case may be taught when showing the use of the apostrophe for possession. In making corrections in

composition work, the present and past tense of common verbs may be taught. When testing a sentence for sense, the simple subject and the simple predicate may be pointed out.

Dictation exercises of from three to five short sentences given every few days, and at times written on the blackboard, will go far toward fixing correct habits in writing according to approved usage.

(2) *Method.* The teacher should use great care in her own written work. She should have the pupils examine their work carefully before handing it in. They should ask themselves whether it says what was intended, whether it will be understood by the reader, whether it uses right word forms, and whether all words are correctly spelled. Pupils should be alert and active in class criticism.

4. Spelling

The difficult words of the four preceding years should be reviewed and to them should be added a list taken from the other branches and from the words needed in writing about common experiences. The list of proper names should be reviewed and enlarged. Systematic use should be made of the dictionary with emphasis on the diacritical markings of a word and on its different uses. Pupils should keep notebooks of difficult words both as to spelling and meaning. Many dictation exercises should be provided. Attention should be given to common homonyms and synonyms. A desire to spell correctly in all written work should be aroused. A good modern spelling book might be used to advantage in this year.

5. Handwriting

By the end of this year handwriting ought to be done with ease and with a fair degree of speed and legibility. All written work should be done with care and with a pride in regard to its neat and readable quality. Attention should be given to the size and slant of letters and to securing a firm instead of a scrawling hand. A pupil should begin practicing for an individual but legible signature. But a good form of letter in sentence writing ought to be insisted on. U's and n's should not look alike.

SIXTH YEAR

1. Reading

A place must be kept on the program of this year for instruction of a definite character in reading, whether informational or literary. Pupils need to be trained in getting the main thought of what is read, to judge of its relative importance, and to read between the lines. Frequently pupils should study subject matter in history and geography with pencil and notebook in hand with the idea of outlin-

ing the topics as presented and reciting from the outline. By the end of the year every pupil should have a fair mastery of the art of reading—whatever else he has accomplished.

a. *Material.* There should be a wide range of reading that will develop powers of organization in study, and that will build up a serviceable method of dealing with literature as a source of pleasure and culture.

Reading will be done in the content of other branches, in reference books, in papers, and in the basal text used and in supplementary readers.

b. *Method.* Careful attention should be given to word study. Teach how to use the dictionary. Probably three-fourths of the reading time should be given to silent reading as study in mastering the content of an explanation, a description, a situation, or the implied meaning in poetry. Occasional periods should be given to recreational reading in class without interruption or questions and where even the meaning of words is inferred from the context.

Occasions should be provided for the oral reading of favorite selections before a group.

2. Literature

a. *Stories and Poems.* Refer to outline for fifth year.

b. *Recreational Reading.* Follow the suggestions for the fifth year. Encourage pupils to talk about books and to buy books from their own money. Select from the list given in Part Five.

3. Composition

There should be marked growth throughout this year in the ability to gather and to organize material for the composition work. Continue definite work in outline building with more discriminating effort placed on the selection and organization of subordinate elements than was attempted in the fifth year. Interest of pupils should be aroused in the use of everday experience as a source of topics for speaking and writing. A quality of thinking that is clear enough to result in a good grip on the sentence sense, should be developed.

a. *Talking.* It will take sufficient time, fully half that assigned to composition for this year, to give practice in answering questions, discussing topics, telling stories or incidents, or taking part in an informal discussion.

The material and method suggested for the fifth year should be used. Current events within the grasp of the class might be added.

Definite practice should be afforded in giving directions to some one who has asked about a road or a location. The occupations and interests of the people of the community are full of subjects to talk about. Special dictionary instruction in pronunciation and choice of words should be provided for.

b. *Writing.* The pupil should by the end of this year be able to write an ordinary business letter, such as an application or an order. He should have developed an interest in doing well such a composition and should have acquired a habit of using the dictionary to check up correctness in the use of words.

(1) *Material.* What is outlined under material for talking for this year can be used for writing.

Material in grammar should be taken up as it is needed by pupils in their efforts to use good English. The relation of the subject and predicate may be studied and the agreement of the simple verb form with the subject should be made clear. The use of *who, what,* and *that* in forming complex sentences might be shown.

The principal parts of such troublesome verbs as *see, do, lie,* and *go* should be shown through complete sentence usage. The classes of sentences according to use should be taken up. It should be shown through criticism of sentences put on the blackboard as actual composition work, that modifiers need to be placed near the words they modify.

The punctuation marks necessary in letter forms should be emphasized. In addition to reviewing the marks already mentioned, the use of the hyphen in the division of a word at the end of a line, and the use of the comma after nouns of address and words in a series, should be studied.

(2) *Method.* All pupils need not write on the same subject at the same time. A couple of letters and a couple of compositions a month are enough, if blackboard work is done on paragraphs. Such compositions should be written with care and with pride in their excellence.

The subjects for both compositions and letters should be of personal interest to the writers. If the pupils are helped by a simple outline, and most pupils are, they should be directed in making it and encouraged to follow such a practice.

An outline is a help to clear thinking. For a short composition or letter, it should fall into three or four simple heads. For a longer composition, or a project study of some kind, it should have subordinate topics; but for this grade, it should not be made complex. The form of an outline might indicate subordination as follows:

I. .....
  A. .....
    1. .....
      a. .....
II. .....

Pupils should be urged to go over their own papers critically before handing them in. They should be commended by the teacher for what is fairly well done. Criticism by the teacher should never be trivial. The pupil should be responsible for spelling and for punctuation he knows. The teacher ought to help the pupil in selecting the right material.

4. Spelling

A good spelling book or spelling list made from the common words used in writing and from the other subjects, as determined by the needs of the class should be used. Have pupils keep individual lists of difficult words and urge them never to take a chance on the spelling of a word. Four or five carefully selected words each day should be sufficient. The lists from former years should be reviewed. Pronunciation, syllabication, and meaning should be emphasized and pupils should be trained in using the dictionary to check all words. Free use should be made of both prose and poetry for dictation exercises. Needed proper nouns should be determined and learned. The common homonyms should be taught.

5. Handwriting

Handwriting habits ought to be fairly well formed by the end of this year. Drills should be brief and exacting. All written work ought to be legible, neat, and well arranged on the sheet before it is accepted. A pupil should develop a pride in doing well the letters that he writes. He should be shown the average accomplishment of a pupil of his age as given on some standard scale for handwriting.

SEVENTH YEAR

Note: In the A class complete alternation for the seventh and eighth years should be used in reading and literature, in composition, and in spelling. The work should be planned with much care.

1. Reading and Literature

All pupils in this year and the eighth year need some specific instructions in how to read to the best advantage the diversified types of printed matter, whether it is glancing over a newspaper, reading a poem, or studying a page of science. The pupils should learn to read for a particular purpose and should proceed as rapidly as the nature of the content will permit.

A basal reader of short miscellaneous selections of literary excellence is most convenient to use. Several such readers are now available. In addition to this reader, one book a month should be read from supplementary books as given in Part Five.

During the seventh and the eighth years extensive home reading should be done of poetry, of stories of the heroic type, of romantic novels, of books of biography, travel, nature, and science. Pupils should also be encouraged to do intelligent reading of newspapers and to become readers of journals such as St. Nicholas and the National Geographic Magazine.

The following poems are suggested for pupils of the A class who can memorize verse to advantage:

Brooke—If I should die think only this of me
Bryant—Whither, midst falling dew
Holmes—This is the ship of pearl, which poets feign
Hovey—I am fevered with the sunset
Keats—Season of mists and mellow fruitfulness
Masefield—I must go down to the seas again
Burns—Is there for honest poverty
Longfellow—I heard the trailing garments of the Night
Tennyson—Of old sat freedom on the heights
Miller—Behind him lay the gray Azores
Noves—Sherwood in the twilight, is Robin Hood awake
Whitman—O Captain! My Captain! our fearful trip is done

2. Composition

a. *Material.*

(1) Oral and written themes on topics such as the following:

(a) Stories of vacation, recreation, and outings. In these, set before the pupils the aim to interest their classmates. When the themes are read aloud, ask if the details included are interesting and necessary.

(b) Description of things that the pupil has made, or directions for doing things. The test questions are: Is it clear? Are all essential points included? The pupils should look for certain definite things such as sentence structure, spelling, punctuation.

(c) Stories, descriptions, details of work done in other departments of the school, or of work outside of school hours, or in vacation. Such subjects as "How I Earned My First Money" are suggestive.

(d) Frequent practice in letter writing. All letter writing should be real, should be in real letter form, and should be written to real persons. The forms of the business letter should be taught.

The following business letters are used at some time by most people and should be taken up in this and in the eighth year: Ordering some articles by parcel post; writing to correct an error in the shipment; a request to a postmaster to forward mail; a request to a newspaper to change the address; a letter of application for a position.

In social letters, the pupils should know these forms: Thanking some one for a gift or entertainment; congratulating some one on his success or good fortune; inviting some one to join in an event or activity; recounting an experience.

The tone of the letter should be courteous, good-natured, and show an interest in the person to whom it is written.

(e) Reports, chiefly oral, upon books read outside of class, the aim of the one giving the report being to interest other pupils in the book. For this purpose, it is best not to allow the whole story to be told.

(2) The principles of grammar are to be taken up in so far as they help in writing and speaking correct sentences. The topics outlined below are sufficiently treated in the newer books on composition. As fast as learned, the principles should be applied in the correction of written work, and pupils should be held strictly responsible for observing them. A common terminology should be accurately used in all work in grammar.

(a) The sentence: Ability to tell which part of the sentence says something about the other part—predicate and subject, with analysis of predicate into verb and complement; agreement of subject and predicate; modifiers of subject, verb, and complement.

(b) Parts of speech: Nouns, common and proper; verbs, idea of tense by use in complete sentences—not formal parsing; case of pronouns through use in sentences; adjectives and adverbs; prepositions and conjunctions.

In correcting errors in grammar in written work insist upon the application of such principles as are known.

b. *Method.*

(1) Motives for composition work should be sought in the life of the school and of the community. A letter written to a pupil who is kept at home by sickness and who wants to know what is going on at school or a discussion on a question of local interest which is being reported in the newspapers will help to vitalize the work.

(2) Oral discussion and the framing of a brief outline should be constructive and should point out merits as well as faults. In pupil criticism, it is particularly necessary to requre this.

(3) The pupil should write with a definite audience in mind, and, as far as possible, his work should be presented before the class. Class criticism should in a measure take the place of teacher criticism. If the purpose in writing is made clear in the assignment, and if the general aims are kept before the members of the class, they can criticize a theme very successfully, and the reaction upon the writer is more marked than when the criticism comes from the teacher.

(4) Blackboard work should be a prominent feature. The exercises should be brief enough to allow them to be written and criticized within the recitation period.

(5) In oral and written work keep before the pupils the conception of the sentence as a unit. Combat the common practice of making an oral composition a series of statements linked with "and's." All the work in grammar should be done with the view of developing an effective sentence sense.

3. Spelling

So long as bad spelling is considered a mark of illiteracy, it is the duty of the school to make a determined effort to overcome it. To send a pupil to the dictionary when he makes a mistake merely shows him how the word is spelled; it does not teach him to spell it. His mistakes are usually due to the fact that he has a blurred or a wrong mental image of the word, often the result of a slurred pronunciation. To correct this, it is necessary to make the right image familiar. When a pupil misspells a word, he should be required to pronounce it and to write it slowly and carefully. Further, the word should be copied into a notebook, which the teacher should inspect from time to time. The pupil should be tested at times on his list of misspelled words.

As an aid to increasing the vocabulary, the dictionary should be frequently used. This may be supplemented by the study of practical word lists selected by the teacher from the books studied, from special word lists, and by the pupil from his general reading.

4. Handwriting

The teacher should require all written work to be done in a neat and legible manner, with firm, well formed letters. Some drill exercises are necessary in this and the eighth years. Pupils should practice for a distinct and legible signature.

EIGHTH YEAR

1. Reading and Literature

Follow the suggestions given under reading and literature for the seventh year. Insist on much reading. Make effective use of the eighth year books suggested in Part Five.

Remember that if a pupil leaves school a good reader he will be able to continue educating himself.

2. Composition

a. *Material.*

(1) Themes, based largely upon personal experience and observation. See topics under the seventh year to which these may be added:

(a) Simple work in explanation of local and civic matters. This may take the form of written answers to questions such as these: How are our roads repaired? Who fixes our tax rate, and for what are the proceeds spent? How are township officers selected?

(b) Themes on worthy qualities in characters whom the pupils admire in life or in books. This leads naturally to themes on what pupils would like to do or be; or this may be brought in as the concluding paragraph of an autobiography.

(c) Much drill in practical exposition, pupils telling how to do things, how to make things, how to go to various places, how various contrivances work. Much of this should be oral, or at least read before the class, and tested by the questions. Has the writer made it clear to one who did not know?

(d) Accounts of visits to points of interest. If this is a class exercise, it should be preceded by a talk telling the pupils what they are to observe particularly.

(e) Discussions on how pupils have earned money, how they have used it, and of how they may use wisely their leisure time.

(f) Much emphasis should be placed on letter writing. Many of the compositions suggested above can be done in the form of letters. Ordinary business and social letter forms should be well learned.

(2) The work in grammar for this year should organize fairly well the principles that have been taken up in other years. Such new material in sentence structure and parts of speech as may seem necessary in order to improve the speaking and writing of the class should be presented. The work in grammar is to be functional, to help children express themselves.

These topics ought to be studied to the extent needed:

(a) Pronouns: Case and gender forms of pronouns to help in correcting errors and to make clear the use of *who* and *which*.

(b) Verbs: Study of tense and of the principal parts of the most troublesome verbs in order to enable pupils to correct their own errors in use.

(c) Prepositions: There are but a few troublesome prepositions such as *of* and *from* and they should be studied as to individual use in sentences.

(d) Phrases: Their function as modifiers, with a careful drill on prepositions and their exact use.

(e) Clauses: Development in an easy way of subordination; exact meaning of a definite number of connectives-con-

junctions, relative pronouns, and some of the conjunctive adverbs; common punctuation of the complex sentence.

b. *Method.* The principles of method laid down for the seventh year apply equally to this year. To these may be added the following:

(1) To secure variety and flexibility in sentence structure there should be abundant drill in sentence manipulation. This, as experience shows, is not only effective but interesting, since it introduces an element of challenge or contest. These exercises, drawn from what the pupils have written, may have various forms:

Combining a number of brief statements into a single sentence;

Changing compound sentences into simple or complex ones;

Reshaping awkward sentences, especially such as contain unnecessary repetitions; placing of modifiers for clearness, smoothness and emphasis;

Punctuating many sentences, or repunctuating faulty sentences. This is effective in showing the relationship of part to part and supplements the grammar study, giving it practical application. Here is found the reason for studying complex sentences as such.

(2) As the pupil is now beginning to write longer themes, it becomes important to emphasize somewhat the paragraph as a unit of discourse. This may be done in various ways:

Planning themes in class and requiring that from an outline each main topic be developed as a paragraph;

Requiring pupils occasionally to exchange themes and test paragraph unity by trying to write the topic of each paragraph in the other's theme;

Assigning topic sentences and requiring pupils to develop them into paragraphs.

(3) Emphasize naturalness in posture and voice, distinct enunciation, and correct pronunciation in oral compositions. A question will often bring the speaker from a voice-for-the-occasion to his natural voice.

3. Spelling

Follow the suggestions under spelling for the seventh year.

4. Handwriting

Follow the suggestions under handwriting for the seventh year.

II. COURSE OF STUDY IN ARITHMETIC

A. POINT OF VIEW

1. General Purposes

The general purpose of teaching arithmetic in the elementary school is to develop skill in the fundamental operations applied to integers,

common fractions, and decimals, and to develop the ability to undertake intelligently the arithmetical tasks of every day life.

2. Essential Processes

The following named are essential processes in which it is necessary to gain proficiency. These constitute a minimum requirement in arithmetic.

a. Reading and writing integers, common fractions, and decimals.
b. Fundamental processes in integers, common fractions, and decimals.
c. Command of denominate numbers in common use; addition, subtraction, and one-step reductions. Tables of linear, surface, cubic measure; liquid measure; dry measure; time; avoirdupois weight; U. S. Money.
d. Use of certain aliquot parts that are frequently applied.
e. Computing simple percentage, with application to simple interest.
f. Mensuration—lengths, perimeters, areas, and volumes in connection with common plane figures and solids.
g. Computing square roots of numbers.
h. Applications to business—borrowing, saving, lending, and investing money; banking; taxes; keeping simple accounts.

3. Method

a. *Oral Work.* Practically all the arithmetic time in years one and two should be given up to oral work. In the later years, oral work should enter prominently in the form of drills on tables, addition, multiplication; measures and their applications; problems without numbers, or the solution of simple one-step problems. In the later years written work accompanies the oral work, but throughout the study of arithmetic the oral work is to be emphasized.

b. *Devices.* In all years, and especially in the lower grades, the use of devices such as "perception cards," contests, games and the like as means for acquiring or fixing number facts, is strongly commended.

c. *Developing New Work.* In the upper years the teacher will need to do much of the arithmetic work by developing new topics with groups of pupils, and then making definite assignments for individual study and performance by the pupils.

4. Individual Instruction

The teacher must acquire skill in determining the exact place at which individual pupils have difficulty in their number work. Thus: Two pupils may fail to add correctly a column of numbers, one of

them because of incomplete learning of the elementary combinations and the other because of inability to "carry" correctly. The number tasks of the early grades must be regarded as composed of small units such as these two just instanced, and the teacher is responsible for knowing the individual difficulties of his pupils.

5. Tests

Practice in the fundamental operations in integers and fractions should continue at regular periods until standard efficiency is attained. As individual pupils attain standard efficiency, they should be excused from the regular drill work given to the remaining pupils. Most of the modern textbooks contain practice exercises, with time limits assigned, to be used for this purpose.

6. Equipment

Such apparatus as a two-foot rule, a yard stick; pint and quart milk bottles; pint, quart, peck and bushel measures, should be available for use in acquainting pupils with the practical applications of arithmetic. Models of geometric solids, carefully made by pupils, will be useful in connection with the work in mensuration.

7. Textbooks

No teacher should expect to teach all the material printed in any textbook. The needs of the pupils must determine where to omit and where to bring in additional material. Each school should have several modern textbooks for the teacher's use, in addition to the one regularly adopted.

B. OUTLINE OF GRADED SUBJECT MATTER BY YEARS

Note: In the arithmetic work of the D class, the entire time of the first half year should be given to the second grade pupils, and the major part of the second half year to the same pupils. In the work of the C, B and A classes, considerable flexibility in programs is desirable, while adhering to the general plan involving necessary sequence of major topics. Frequently the entire time given to one class may be spent in work with the entire group.

New topics should be introduced in such a way as to involve the largest possible interest and attention of the group concerned with these new topics, and not to call for attention to them on the part of pupils who are already familiar with them.

At all times, the individual needs of the pupils should be carefully sought out, and instruction designed to meet these needs. Pupils

should be encouraged to progress as rapidly as they can, and should be moved to a higher grade as soon as their competence to do the advanced work is clearly shown.

It should be understood by the teacher that it may be best at times to require the pupils to work, each one at his own task, during the arithmetic period, instead of having the conventional recitation exercise in which the pupil is tested as to what he remembers of the preceding lessons. The teacher is busy giving to each one the particular kind of help he needs to enable him to master the work in hand. In this way no pupil is neglected, and each one is stimulated to the maximum degree of self-activity and progress in the subject.

FIRST YEAR

1. Material and Method

a. *Aim.* The aim of the arithmetic work in the first year is to utilize the concrete number experience the children have and to provide appropriate new experiences.

The work will be almost exclusively oral.

Advantage should be taken of opportunities to make clear quantitative relations as they arise in the course of the year's regular activities, but care should be taken that the number work is not overemphasized.

b. *Construction Work.* Construction work affords opportunity to require folding, measuring, cutting, pasting. These exercises involve the use of terms of position (as first, right, upper), of quantity (as more, larger, longer, one-half); of form (as square, circle).

Bead-stringing, work with blocks, seeds, sticks, and tablets give practice in sight recognition of small numbers of object and furnish opportunity for laying the foundations of fundamental processes; as two groups of 3 blocks, 6 blocks; 3 groups of 2 blocks, 6 blocks.

In the course of the class work, there will be opportunity to count the various items used in construction work; to count the erasers and crayons at the blackboard; the number of girls in the third row; and so on.

c. *Language Work.* Control of the spoken language of number is acquired through exercise in counting objects; by the repetition of the number-names in order; by counting in nonsense rhymes and in games, as by 5's and 10's to 100 in hide and seek; by indicating position, as calling for the name of the third child in the second row, and in choosing sides for games. Scoring, choosing up, playing

store, afford valuable opportunities for exercise in the use of number-language.

The child's experiences outside the schoolroom are vividly interesting to him and should be called upon in this connection. The affairs of the folk in his family, the number of rooms in his house, the behavior of his playmates, the articles bought at the store, pints and quarts of milk, the number of cattle in the field, automobiles, bicycles, his pets—all these provide opportunities to talk about numerical relations.

Control of the written language of numbers is to be acquired by blackboard work, carefully supervised to prevent formation of incorrect habits.

2. Attainment

At the end of the first year, the child should know:

a. How to count objects by 1's to 50, by 2's to 20, by 5's to 25.
b. How to write any number to 25.
c. Combinations of two numbers of one figure, each, sums 9 or less; also corresponding differences.
d. How to solve very easy, one-step concrete, oral problems within the limit 10.
e. Certain measures: as cent, nickel, dime.
f. Counting to 100.

SECOND YEAR

1. Method

a. *Abstraction.* In order that numbers may be used with facility, the number-idea must become separated from the objective experiences that give it meaning until the number-idea stands alone and can be used in connection with any objects. This process of abstraction is a long and gradual one, brought about by the repeated use of the same number of different objects.

b. *Oral Work.* Oral work predominates in this year. The first half year's work should be almost entirely oral; in the second half of the year, at least half of the work should be oral.

c. *Drill.* In learning the tables, the different combinations are not equally difficult and the amount of drill on the several combinations should correspond to the degree of difficulty. Daily drills with time element should be used.

Note that in multiplication and addition, both forms of each combination need to be taught; that is, $9+3=12$; $3+9=12$; $4\times6=24$;

$6 \times 4 = 24$. The addition facts should be taught in both the direct and indirect form; thus, $9+3=N$ and $9+N=12$, where N is a number.

d. *Graduation.* In the early work with numbers, it is especially important to make careful graduation of new facts. The following order is suggested for acquiring control of the elementary number facts:

(1) Adding two equal numbers, from $1+1$ to $10+10$.

(2) Adding two unequal numbers, the sum not to exceed 10: $1+2$ through $4+6$.

(3) Adding two unequal numbers, one of which does not exceed 4, the sum exceeding 10: $1+10$, $2+9$, through $4+10$.

(4) Adding two unequal numbers, each exceeding 4: $5+5$ through $9+10$.

A reasonable proficiency in each group should be attained before proceeding to the next.

e. *Accuracy.* Throughout the arithmetic work of the elementary school, accuracy must be an objective. From the very beginning it should be recognized that knowing half of the combinations and number-facts is far better than to half-know all of them. Accuracy in the control of number-facts comes first; speed is added by proper practice.

2. Material

a. Sight recognition of the number of objects in a small group.

b. Careful instruction in reading and writing numbers to 1000.

c. Multiplication by 5 of numbers from 1 through 10, since this is the easiest multiplication table to learn, and fixes the idea of multiplication most clearly and emphatically. The tables of 2's and 3's may be taken next.

d. Association of one-half of an apple, one-half of a cooky, and so forth, with their concrete meanings, so that the pupil can properly name a clearly designated half of an object like an orange or a crayon.

e. Concrete problems as:

(1) Two oranges at 5 cents each, cost how much?

(2) If I give the storeman one dime, when I buy a pencil for 4 cents, how much change should I get?

f. Addition of two numbers, through $10+10$, with the corresponding subtraction facts. Control of these facts should be automatic; that is, these facts are to be memorized results of experience. Pupils are to be kept from counting. When pupils hesitate, do not permit them to count: give the result.

From the beginning, pupils should be accustomed to the use of the equation form, with an unknown number to be determined. Thus,

$$8+4=N.$$
$$8+N=17$$
$$12=N+5$$
$$N=10+6$$

g. Addition of two-digit numbers without carrying.

h. Subtraction of two-digit numbers without carrying.

i. Multiplication by 2 and 3 of two-digit numbers, the latter without carrying.

j. The division table should be taught as the inverse of the multiplication table; that is, the multiplication table should carry the division table with it, just as the addition table carried the subtraction table with it.

k. Solving simple one-step concrete problems requiring application of foregoing facts.

l. Using the measures pint, quart, gallon, inch, foot, yard, day, week, peck, bushel, cent, nickel, dime, dollar.

m. Problems growing out of purchases of groceries and kitchen provisions. Devices such as flash cards, toy money, paper squares and circles, may be used to put number facts and relations in new and interesting ways before the children.

THIRD YEAR

1. Method

a. *Habit Formation.* This is a period of habit formation in the children's lives, and advantage should be taken of this fact to form correct habits in numerical work. Stress should be laid on the development of habits of rapid work and accuracy—particularly the latter.

In the beginning, the emphasis must be placed upon accuracy and neatness. "Speeding up" exercises are to be given after the work has begun to be automatic.

Oral work still predominates, but in this year larger numbers are used, and the children begin to acquire the habit of writing their computations. Written work begins to assume importance, and attention must be paid to legibility and neatness.

Concert work is useful, but must not be employed exclusively. Individual instruction must be given the pupils.

b. *Drill.* The best drill on the multiplication tables is secured by using them in regular multiplication of two-and three-and even four-place numbers.

c. *Practical Problems.* Nature study, construction work, the study of home-life problems in canning fruit, buying and selling supplies, etc., will suggest numerous concrete and practical problems for third year arithmetic work.

Concrete development, including problems found in the children's experience, should be part of the teaching of each new number fact.

2. **Material**

a. Reading and writing numbers to 9999.

b. Fix addition and subtraction facts by frequent and snappy drills. Counting by 2's beginning with 1, and with 2, counting by 3's beginning with 1, 2 and 3, and with 4 and so on, lead easily to needed practice in the additions with higher decades.

c. Addition and subtraction of two-and three-and four-digit numbers, involving carrying and borrowing. Let amounts carried be 2, as well as 1, so that carrying does not come to mean "adding 1."

d. Counting by 4's to 40, 5's to 50, and so on to 9's to 90,

e. Multiplication of two-digit and three-digit numbers by 2, 3, 4, 5, and so on to 9. These multiplications will first use numbers such that no carrying is required, and no zero difficulties are met; then introduce carrying, and later, use multiplicands like 203 and 360.

f. Much oral drill in division of two-digit numbers by 2, 3, 4, 5. Quotients should be one-digit, with remainders expressed as remainders. In this connection, make use of tables in the form:

10 = ...2's
10 = ...3's and.....rem
10 = ...4's and.....rem
10 = ...5's
11 = ...2's and.....rem
.....
89 = ...9's and.....rem

g Short divisions of two-digit numbers by 2, 3, 4, 5, remainders expressed; as

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   20 rem 3
   --------
4)83
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Accustom pupils from the beginning, in written work in division, to placing quotient over the dividend as shown.

h. Addition of columns varying in length to 7 numbers, to secure speed and accuracy—largely oral.

i. Multiplication tables to 9's, and their reciprocal division tables. Pay particular attention to the ten combinations 6x6, 6x7, 6x8, 6x9, 7x7, 7x8, 7x9, 8x8, 8x9, 9x9.

j. Develop concretely 1/3, 1/4, 1/5, 1/6, 1/7, 1/8, 1/9 of a single object, of a group, and of a number.

k. Much oral drill in division of two-digit numbers by one digit numbers, with remainders expressed.

l. Short division of three-digit numbers by 6, 7, 8, 9, remainders to be expressed; as

$$\begin{array}{r} 122 \text{ rem } 2 \\ \hline 7)856 \end{array}$$

this to be in close proximity to the learning of the multiplications.

m. Teach related number facts together: as 8x9 = 72; 8x? = 72; 9x8 = ?; 9x? = 72; 1/8 of 72 = ?; 1/9 of 72 = ?

$$\begin{array}{rr} ? & ? \\ \hline 9)72 & 8)72 \end{array}$$

n. Roman numerals to XII.

o. Teach telling of time, using standard railway form 4:52; instead of twenty-five minutes after four.

p. Teach U. S. money.

3. Attainment

At the close of the third grade the pupils should be familiar with the following facts, and be able to use them:

Minutes in hour
Hours in day
Days in week
Weeks in month
Months in year
Values of U. S. coins
Inches in foot
Feet in yard
Pints in quart
Quarts in gallon
Quarts in peck
Pecks in bushel
Ounces in pound.

FOURTH YEAR

1. Method

a. *Essentails.* The essentials of arithmetic—the four fundamental operations—should be stressed and fixed in this year.

All the processes taught in previous years must be performed with greater speed and accuracy, using more difficult numbers.

b. *Long Division.* The mastery of long division is the important new work of this year. Proper habits in connection with the four steps—finding the quotient figure, multiplying, subtracting and bringing down—must be carefully developed.

c. *Drills.* Drills upon the fundamental operations should be given until three-fourths of the class attain the standard indicated for the grade. Five minutes is the best length of time for drill periods. Standardized practice materials and tests can be made to add to the interest in arithmetic work, by enabling the pupil to measure himself against his own past, and to have a clear notion of just how much better he can do the same tasks than he could a month or three months ago, and of how much harder things he can do now than he could do then.

2. Material

a. Reading and writing numbers to 5 and 6 orders.

b. Frequent practice in the four fundamentals, to secure speed and accuracy.

c. Column addition with not more than eleven one-digit, or eight two-digit, or three-digit, numbers, with a time limit.

d. Subtraction of two-, three-, and four-digit numbers, from a four-digit number with two borrowings, and these not successive.

e. Multiplication by two-digit multipliers; multipliers at first to consist of 1's, 2's and 3's, and gradually to increase in difficulty. Use numbers up to 5 and 6 place as multiplicands, and follow up immediately by learning multiplication with 3-figure multipliers.

f. Division of three-digit dividends by one-digit divisors; results to have remainders at first, even division being merely the case in which the remainder is zero.

g. Long division, first of two-digit and then of three and four-digit dividends, by two-digit divisors, the problems gradually increasing in difficulty; drill on the four steps in long division.

h. Addition and subtraction of dollars and cents, the dollars not to exceed two figures.

i. Tables of U. S. money; time; liquid measure, limited to pint, quart, gallon; dry measure; linear measure, limited to inch, foot, yard; avoirdupois weight, limited to ounce and pound; square measure, limited to square inch, square foot, square yard.

j. One-step reduction problems in the tables listed.

k. Continued drill in telling time. Have pupils keep track of the time it takes them to do certain tasks, and of the amount of work (as, for instance, the number of exercise of a certain sort) each can do in a specified time.

l. Many oral and written concrete problems involving the tables learned, and touching the experience of the pupils, and the transactions of daily life.

m. Fractional parts of denominate numbers within the tables, applied to easy concrete problems; as two-thirds of a yard of ribbon at 48 cents a yard, costs how much?

n. Concrete study of the fractional parts of a single unit, obtained by folding, cutting, drawing, etc., beginning with halves, and continuing to twelfths, leading the pupil to see the simple facts of equivalents, addition, subtraction, multiplication and division (with integral quotient.)

o. Reductions:
   (1) of fractions to equivalent fractions as 1/2=2/4.
   (2) of whole numbers to fractions with denominators limited to 12.
   (3) of improper fractions, denominators limited to 12, to whole number or mixed number.
   (4) of mixed number to improper fraction.
   (5) of fractions to others with common denominators.

p. Additions and subtractions of fractions with denominators limited to 12, and common denominators limited to 36. Care should be taken to present simple situations, as halves and thirds to be added or subtracted, and to be thought of as sixths; then of thirds and fourths to be manipulated, and to be thought of as twelfths—and to have the general rule of thinking of fractions as their equivalents with convenient denominators develop as an extention of these special habits.

q. Problems without numbers, as—If you know one side of a square, how can you find the distance around it? If you know how many gallons a jar holds, how can you find the number of pints it holds?

FIFTH YEAR

1. Method

a. *Drills.* All power gained in earlier years must be kept up to standard. Hence, systematic reviews and drills must be employed.

Daily drills on integers with a time limit, and on denominate numbers, are recommended.

Legibility and neatness in written work must be insisted upon.

b. *Fractions.* The leading subject for this year's study is fractions. Much objective work will be needed in developing operations with common fractions.

c. *Small numbers.* It is better to perform several operations upon small numbers than one on an absurdly long one. Long series of problems of the same type, all to be solved the same way, should be

avoided. In general, excessive repetition of any one kind of work, requiring no choice of methods, should be avoided.

Pupils like to get results, and it is worth while to enable them to get many answers to problems that are real to them.

d. *Rationalizing.* Usually, explanations of why a process must be right may profitably be deferred until the pupil can use the process with accuracy, and have proved that it gives correct results.

A vitally important phase of mathematical skill is understanding the problem and interpreting the mathematical language. Problems should be discussed by the teacher with the class, to develop the habit of reasoning—to determine the processes necessary to be gone through to get the solution.

e. *Analysis.* Pupils should be required frequently to analyze or explain problems. This power to analyze is one of the essentials of clear, systematic thinking. As soon as a pupil exhibits evidence of thorough comprehension of the thought involved, analysis should be abandoned. The language used in the solutions of problems should be the pupil's thinking, expressed in succinct and logical statements, with due regard to good English.

f. *Oral Work.* Oral arithmetic has fundamental educational value, and should be assigned a good part of the total time allotted to arithmetic.

2. Material

a. Review of fundamental processes with integers, as need is indicated by standard tests.

b. Review of work done thus far is fractions.

c. Multiplication of fractions by integers, and of fractions by fractions. Avoid the use of the term "cancel"; use instead, the phrase "Divide numerator and denominator by."

d. Develop mensuration of rectangle, parallelogram and triangle. Much problem material based on these.

e. Multiplication and division of fractions, denominators, limited to 12, and resulting denominators to 36. In division by fractions, habituate the pupils to the process of inverting the divisor and multiplying, without attempting to give deductive proofs of why it is done.

f. Bills, household purchases, grocery, dry goods, picnic supplies, stock bills for shop projects, and the like.

g. Manipulation of fractions with somewhat larger denominators than those used heretofore, limited, however, to those that are likely to be met with in real life, exercise in reduction to lowest terms of such fractions as $\frac{6}{10}$, $\frac{15}{25}$, $\frac{28}{32}$, $\frac{42}{64}$, $\frac{25}{100}$, $\frac{60}{100}$, and the like.

h. Objective work leading to acquisition of the concept of 1/10 of a foot, 1/10 of a square foot, 1/100 of a square foot; finding the number of feet in 1/10 of a mile, the number of inches in 3/10 of a yard.

i. Writing fractions with denominators 100 in decimal form basing this work upon U. S. money.

j. Familiarity with hundredths and thousandths by reduction to lower terms of fractions with denominators 1000, 100, etc.: by supplying the missing numerators in 800/1000= ?/100 = ?/10 and the like; and by finding 1/10, 1/100, 1/1000 of numbers like 6,000 9,000.

k. Mixed numbers, involving only tenths; additions of short columns of such numbers.

l. Place-values through hundredths.

m. Reading numbers involving all degrees of difficulty, to two decimal places.

n. An abundance of problems relating to the common transactions that touch the pupils' lives.

o. Problems without numbers, as—If you know how much money George saves each week, how can you find how long it will take him to save enough to buy a bicycle?

SIXTH YEAR

1. Method

a. *Decimals.* The leading subject of this year's work is decimals, with an introduction to percentage.

b. *Problems.* The solution of problems continues to receive emphasis; exactness of thought and accuracy of statement must be insisted upon. Not all problems need to be worked out; comprehension and exact statement may be sufficient.

c. *Short Methods.* Short methods of handling common operations have a real value, and may be introduced after the long processes are thoroughly understood. For example, multiplication by 25 may be replaced by multiplication by 100 and divisions by 4. Care should be taken in this connection, to employ only short methods that are likely to be of real use.

d. *Drill.* There should be short daily drills to secure speed and accuracy in changing fractions to decimals, decimals to fractions; to fractional calculations, and to reductions in denominate numbers.

e. *Content.* When this year's work is completed the pupil should know the table of time, linear, dry and liquid measure; avoirdupois weight; U. S. money; addition, subtraction, multiplication and division of fractions and decimals; the elements of percentage; and the simple checks on work. This year's work should provide more for

the analytic mind by requiring pupils to give reasons for operations, and by presenting problems requiring reasoning in the solution.

2. Material

a. A clear conception of a decimal fraction as a certain number of tenths, hundredths, etc., of a unit, involving a review of the work done on decimals in the previous half year.

b. Reading and writing decimals, limited to thousandths.

c. Changing decimals to common fractions; as 0.4 to 4/10 to 2/5.

d. Changing common fractions to decimals; as 2/5 =4/10 =0.4.

e. Addition and subtraction of decimals, building on the knowledge already acquired in connection with U. S. money.

f. Multiplication and division of decimals. In division with a decimal divisor, pupils should be habituated from the first to placing the quotient over the dividend and to changing the divisor to an integer by multiplying both dividend and divisor by the appropriate power of ten.

g. Practical problems.

h. Percentage, considered as an application of decimal fractions. "Per cent means hundredths."

i. Change decimals to percentages; as 0.4 = 40/100 = 40%.

j. Change percentage to decimals; as 6% = 6/100 = 0.06.

k. Change fractions to decimals and per cents; as 1/2 = 0.05 =50/100=50%.

l. Fix table of equivalent of fractions and per cents, and reverse, as 50% = 1/2; 25% = 1/4, etc.

m. Find a given percent of a number.

n. Find what percent one number is of another.

o. Everday discount.

p. Profit and loss. Care should be taken to indicate that the profit or the loss is a certain percent of the cost price, or of the selling price, as the case may be.

q. Interest. Only real problems should be considered. The only problem to be considered is: Given principal, rate and time, to find interest. Make use of the equation i=p r t.

r. Review and extend denominate number tables.

s. Develop and drill on the method of finding areas of trapezoid and circle, and volumes of rectangular solids.

t. Problems without numbers, as—If you know the area of a rectangle, and its length, how can you find the height? If you know the dividend and quotient, how can you find the divisor?

3. Attainment

By the end of the sixth year, the pupil has learned the computation side of arithmetic, with the exception of square root and proportion.

SEVENTH YEAR

Note: The work of this year is concerned chiefly with percentage and its application.

1. Fundamental operations

Practice in the fundamental operations applied to integers and fractions, common and decimal, should be continued until standard proficiency is attained. When pupils attain standards, they should be excused from regular drill work.

Short and frequent snappy exercises in oral arithmetic, involving rapid analysis and quick mental calculation should form a regular part of the work in arithmetic.

a. In working with fractions, the emphasis is to be placed on simple fractions: such as 1/2, 1/3, 2/3, 1/4, 3/4, 1/5, 1/8, etc.

b. The decimal equivalents of fractions most commonly used should be fixed in mind, and the process of reducing any fraction to a decimal should be automatized. Rapid drill in one-step operations should be used for speed and accuracy. Material for this purpose may be of the following type:

   1/5 of 60=
   .20 of 50=
   12=What decimal part of 60?
   12=What fractional part of 60?

c. The accurate placing of the decimal point in the process of division should be made automatic by fixing the habit of writing the quotient over the dividend, and of making the divisor an integer by multiplying, if necessary, both dividend and divisor by the appropriate power of ten.

d. Simple short cuts in multiplication and division.

e. In the solution of problems, care is taken to pass from the solution of the particular concrete problem to the formulation of a general rule.
   The sequence, starting with the problems stated in numbers, through the problem stated in letters, the rule, the formula, and the problem without numbers, may in degree of difficulty vary from step to step, and care must be taken that the pupils are not unduly hurried in the generalization.

   (1) The length of a field is 50 rd. and its width is 10 rd. What is its area?

   (2) The length of a field is 1 rd. and its width w rd; what is A (the area) in terms of 1 and w?

   (3) State the rule for finding the area when length and width are known; for the length, when the area and width are known.

   (4) Write the formula for A, when l and w are given. Write the formula for l when A and w are given.

(5) The length and width of a field are given. How may I figure the cost if the cost of one acre is given?

f. In general, problems involving long computations should not be done in class time.

2. **Percentage**

a. Fixing the equivalence of meanings of the symbols for fraction, decimal, and percent. Graphs and diagrams to be used as helps in visualizing equivalence of percents and fractions.

b. Interchanging common fractions and percents, finding any percent of a number, finding what percent one number is of another, finding a number when a certain percent of it is known; such applications of percentage as come within the pupil's experience.

c. Much material must be provided for quick mental work, of the following type:

50% of 200 = ?
½ of 200 = ?
40 is what percentage of 200?

d. Application of percentage:

(1) *Interest.* Compound interest. The general method of figuring interest should be taught, and also the use of interest tables. Thrift and interest, studied in connection with savings accounts.

The formula i=p r t should be used in solving problems.

(2) *Profit and Loss.* Stress the need of care in choosing the base on which to compute the percent of profit or loss—usually this base is the cost; sometimes the selling price is used.

(3) *Commission.* To be computed on the amount of purchases or sales handled by the agent.

(4) *Discount.* Reason for "2% off for cash." Successive discounts.

(5) *Seed testing.*

e. The following sequence illustrates desirable work to be done under the applications of percentage. Care must be taken to recognize the increase in difficulty as soon as generalization is undertaken, and to anticipate these difficulties.

(1) A farm was bought for $5600, and sold for $6100. What was the percent of gain?

(2) A farm was bought for P dollars, and sold for S dollars; what was the percent of gain?

(3) State the rule for finding the percent of gain or loss when an article is sold.

(4) Write the formula for gain percent, in terms of P (purchase price) and S (selling price), when S is greater than P.

(5) Write the formula for a Loss percent.

(6) How shall I find the gain percent in a transaction which involves buying goods, paying cartage on them to the store, and then selling them?

3. Business Practice

Keeping accounts and elementary bookkeeping; personal expense accounts; charge accounts; bills and receipts; discounts for prompt payment; remitting money.

4. Standard Time

Explanation sufficient to enable pupils to understand change of time in travel. Close correlation with the geography work.

5. Arithmetic of Insurance; Discussion of the Need for Insurance

a. Fire insurance.
b. Insurance of other kinds: automobile, hail storm, live stock, etc.
c. Life and accident insurance.
Problems on insurance to involve only the simple applications.

6. Arithmetic of Taxes

a. *Township Taxes.* Sources of expense in local governments, and ways of levying taxes.

b. *National Revenue.* Sources of expense in national government and ways of raising revenue: customs and duties, income tax, luxury tax, etc.

7. Arithmetic of Banking

a. Different kinds of banks.
b. Saving account and checking account: deposit slips for each.
c. Writing and endorsing a check.
d. Making out withdrawal slip for savings account.
e. Borrowing money: promissory note.
f. Transmitting money to distant places.

8. Arithmetic of Investment

a. Buying and selling real estate.
b. Stocks and bonds; fix clearly the difference between these two as investments. Use market reports of newspapers for problem material. Is a bond promising 10% return always better than one promising 6%? Importance of dealing with reliable agents: consultation with the local banker.

EIGHTH YEAR

Note: The work of this year is chiefly concerned with mensuration.

1. Practice in the Fundamental Operations

Applied to integers and fractions, common and decimal, should be continued until standard proficiency is attained. When pupils attain standards, they should be excused from regular drill work.

Short and frequent snappy exercises in oral arithmetic, involving rapid analysis and quick mental calculation.

2. Tables of Weights and Measures in Common Use

United States money, avoirdupois weight, dry measure, liquid measure, time measure, linear measure, square measure, cubic measure. Consult the State Bureau of Standards for information concerning legal requirements of weights and measures.

3. Mensuration

This subject should acquaint the pupil in a simple and interesting way with the most important geometric forms and their applications, through directed observation and experiment.

a. *Simple Geometrical Figures.* Familiarity with properties of equilateral triangle, 30°—60° right triangle, isosceles right triangle, circle, square, regular hexagon: knowledge of the facts concerning the sum of the angles in a triangle; simple solids, such as a cube, pyramid, cone, prism, sphere. In connection with this work, accustomed pupils from the beginning to use "circle" to mean the closed curve, and the "polygon" to mean the closed broken line. "Area of the circle" and "area of the polygon" are to be taken to mean the areas enclosed by the lines.

Geometrical forms in nature and art: in flowers, fruits, leaves, and animal forms; in architecture, manufacture and industry.

b. *Simple Geometrical Drawing.* Use T-square, triangle, protractor and compasses: constructing perpendicular bisectors of lines, bisectors of angles, parallel lines; regular polygons, simple designs for ornament, etc. Use of squared paper.

c. *Direct Measurements.* Use of linear scales and protractor. Appreciation of the fact that these measurements are approximations, and development of judgment in the use of such data in computation; particular attention to be given to the number of figures to be retained in computations with approximate data.

d. *Area* of square, rectangle, parallelogram, triangle and trapezoid; length and area of circle. These facts are to be established in an experimental way, so far as possible by the pupil's own activity. The rules to be stated as formulas, and much practice given in evaluating these formulas.

In the mensuration of the circle use the value 22/7 for Π except in the rare cases when the exactness of the measurements warrants the use of 3.1416.

e. *Surfaces and Volumes* of the most important solids: cube, prism and cylinder, pyramid and cone, sphere. Relatively less time should be spent on the pyramid, cone, and sphere, giving enough attention to develop the ideas of surface and volume and their relations to surfaces and volumes of other solids.

4. Informal Treatment of Similarity

Drawings to scale: plans, simple working drawings, maps, use of squared paper; simple applications of proportion. In all cases, the proportion to be treated as an equation, avoiding use of terms "means," "extremes," "antecedents," "consequents."

5. Graphic Representation of Facts

These are helpful in every grade. The simplest forms of graphical representation are usually called diagrams, and the more complicated forms are called graphs. It is not easy to draw a distinction between these two forms. The elementary forms of graphs are:

a. Those showing the relative amounts of like quantities by means of:

(1) A rectangle or circle divided into parts proportional to the quantities to be compared with each other and with the total. These are called circle or rectangle graphs.

(2) Parallel lines or bars drawn to scale to show relative amounts. These are called bar graphs.

b. Those showing statistical data in which the variation of two unlike quantities is shown as they change together. For example, temperature changes during the day, showing temperature units along the vertical axis and time units along the horizontal axis. These are called line graphs. Examples of these various kinds of graphs should be found in the current magazines and newspapers, and should be studied and interpreted.

6. Square Root

In finding the square roots of numbers, the following process is recommended:

Required to find the value of $\sqrt{5486}$, the pupil knows that $70^2=4900$ and $80^2=6400$, and hence that the required root is between

70 and 80, and is nearer 70 than 80. When called upon to estimate the square root of 5486, the pupil may say 72. The test of 72 is then made by dividing 5486 by 72. The result, 76.2, indicates that 72 is too small, and furthermore, that the root must be less than 76.2. The average of these two numbers, 74.1 may then be taken as the required square root. If a greater degree of accuracy is needed, the process of checking by division and correcting by taking the mean value, may be repeated.

7. Metric System

Explanation and illustration of units, and construction of tables. It should be noticed that the "metre" must be known before we can tell what a "foot" is, since, legally our inch is defined by the declaration that a certain metal bar, in Washington, D. C., known as the standard metre, is 39.37 *inches* long.

III. COURSE OF STUDY IN GEOGRAPHY

A. POINT OF VIEW

1. Contribution of Geography to the Child's Development

Geography is a scientific study of the relationships between man and the earth which involves certain definite facts and principles. It traces the relationships between the life responses and the influences of a given physical environment. The life responses deal chiefly with man's work and thoughts, and also to a degree with plants and animals. The physical factors which influence life are surface, climate, soil, mineral deposits, and position relative to developed regions. It must be remembered that man not only is adjusting himself to geographic controls, but in increasing measure is modifying the geographic factors in his environment to meet his needs and desires.

The lessons in geography should be based on the child's experiences. They should create situations which will produce the significant activities in a child's life that indicate a growing adaption to his environment, and that will gradually make it possible for him to think in terms of the lives of people elsewhere in the world. Geography lessons should help to develop these habits and attitudes that children may be expected to develop at certain stages. Thus, the presentation of geography in the elementary schools deals not only with the acquisition of carefully selected geographic ideas, vocabulary, and principles, but also with the development of abilities, skills and attitudes of mind, essential for American citizenship.

The specific contributions which geography lessons make in achieving our democratic ideals are:

a. Training in ability to use such geographic tools as specimens, pictures, word matter, globes, maps, graphs, charts.

b. Habits of turning to people for information; thus the child discovers that people in the home and in the industrial and business world can be of definite assistance to him.

c. Acquisition of accurate, vital facts and broad geographic principles concerning the lives of people all over the world who after all really are his neighbors. At the same time he is accumulating a geographical vocabulary that is necessary in life.

d. That broad, scientific attitude of mind whereby the child will weigh the problems placed before him, fairly consider them from all sides, and insist on full information before he arrives at a conclusion.

2. Essential Factors in Teaching Geography

a. *Up-to-Dateness.* Geography deals with the life activities of people all over the world. Life is not static, it is dynamic. It is constantly changing; therefore, one of the first necessities in the teaching of geography is constant watchfulness on the part of both teacher and pupil for new developments throughout the world.

The textbook is a guide and reference, but it cannot be kept up to date on all the information necessary for the vital teaching of geography. Every available source must be utilized by the teacher and pupil. Current books, magazines and bulletins are necessary in the preparation of geography lessons.

b. *Variety of Method.* The teacher should think of the classroom period as the time during which the pupil is learning how to study geography, rather than a time when the pupil is reciting on the facts of geography. This requires that in practically every geography lesson some attention must be given to the pupil's ways of using geography tools. He must know how to use a picture, a globe, a map, a graph, and verbal and statistical matter. The modern textbook in geography with its pictures, maps, graphs, diagrams or charts, and verbal and statistical matter, will be the leading source of information. However, materials of all kinds including specimens are essential and can readily be obtained by the cooperative interest and work of pupils, teacher and community.

(1) *A Unit of Work.* The project idea is a point of view rather than a method. Every unit of work in geography should be a piece of "purposeful activity carried to a successful conclusion." It may involve the study of an occupation, a commodity, a country, a continent, a region, or a problem which

deals with various occupations, commodities, countries or regions. In every case the pupils must have a common purpose in mind for studying the unit and must be analyzing the relationships between life reactions and the physical factors of environment. At times a concrete form of expression such as a miniature coal mine may be the outcome, but many times there will have been merely the oral and written discussion of the work in the effort to arrive at some conclusion. However, in a unit of work in geography, specimens, pictures, maps, graphs, and charts, as well as verbal matter, are essential.

The development of a unit of work will require two or more days and will go through these stages.

(a) Selection of some central idea on which to work: an occupation, commodity, country, continent, region, or problem. This is done by pupils and teacher during a geography recitation period.

(b) Searching the textbook through the use of the index, other books, advertising material, such as catalogs, almanacs, and magazines, and good bulletins for pictures, reading matter, maps, charts, graphs. The field, woods, home, especially the kitchen, barn, tool house, and store will be searched for specimens. At times letters will be written to firms and individual persons living beyond the local community for assistance. The pupils carry on this work during the geography study period and at home. Letter writing will be part of the English work.

(c) Organizing and presenting the ideas and material so that they will tell the story of the occupations of people under consideration, or will solve the geographical problem which the pupils have decided to solve. The pupils and teacher participate in this during a recitation period.

(d) Judging by the pupils of the quality of work that was done when their classmates were presenting ideas and material. This judging will take place during the recitation period.

(e) Clinching or studying the essential parts of the unit of study. First, the pupils and teacher in the recitation period determine what facts and principles presented in the organization of the material should be retained by the class. Then the pupils during the study period, study silently and illustrate their ideas by booklets, posters, sand-table moulding, paper cuttings. Some of this work will be done in correlation with the art and English composition periods.

(2) *Judging a Unit of Work.* The following will be suggestive to the pupils and teacher in developing and establishing ways, or guides, for judging a unit of work:

(a) Is our unit of work worth while?

(b) Do we clearly understand what we should do?

(c) Do we know where to go for information and material?

(d) Does the material which we are using help us with the unit of work we have in hand?

(e) Are we distinguishing carefully between what is and what is not important?

(f) Have we gathered our information from every possible source; from observation, by asking people, by reading?

(g) Have we organized our information and concrete material (specimens, pictures, sketches, maps, charts, and graphs), so that they clearly and definitely present the necessary ideas?

(h) Can we think of any other ways of doing this work? Which is the preferable way?

(i) Have we discussed the work carefully enough before drawing conclusions?

(j) Have we summarized the facts and principles relating to the unit of work? Are we definitely tracing the relationships between man and the physical factors of his environments?

(k) How has the solution of this problem helped us to be better able to solve similar problems as they may arise?

3. Special Drill Activity

Where a general lack of proficiency in the use of a certain tool of geography, such as specimen, picture, book, globe, map, chart, graph, is discovered, an exercise involving considerable use of the given tool or tools should be motivated through pupils' activity, and be worked out by pupils and teacher.

4. Review Lessons

Means of review or clinching the essential geographical facts and principles are numerous—such as games, puzzles, plays, imaginary journeys. As many of these devices as possible should be devised by the pupils. Frequently a pupil may be assigned to choose from a miscellaneous mass of pictures just those which will present the proper ideas to be demonstrated. His classmates will then judge the completness and accuracy of his work. Another method of review is to have the pupils indicate on an outline map the necessary ideas dealing with a given topic, such as coal or sugar, then discussing orally the reasons for the production, shipping, and consumption as indicated on the map.

a. *Coöperation.* To carry on this vital kind of teaching a spirit of coöperation must be developed by the teacher among the pupils,

between the pupils and teacher and between the entire community and the school. Every member in the school district can at various times make contributions such as pictures, specimens (grains, things found in the kitchen—rice, tea, coffee): magazines (old or new); catalogs and other advertising material.

b. *Material.* The following are not only useful but really necessary; specimens, pictures, a globe, maps, physical and political; textbooks and other books, magazines, especially the *National Geographic News Bulletin* and the *National Geographic Magazine;* large sheets of paper for graph and chart making. In addition, the children can bring a considerable amount of material to the school from the woods, fields, their homes, and friends.

It is advisable to have the concrete material introduce the idea when that idea is new or when there is a probability of a confused notion having been previously formed by the child. On the other hand, in connection with review, the children may be required to express their ideas by choosing from a miscellaneous collection those specimens or pictures which illustrate their notion; thus concrete material may serve as a means of illustration, as the check or test of knowledge previously obtained.

e. *Expression Work.* It will be found advisable to concentrate on one or two subjects or problems in the expression work rather than to encourage the pupils to spread their energy over too many topics. The pupils, however, should always bring contributions in the way of pictures, specimens, sketches, clippings, etc., that will be useful in the general development of the geography lesson, even though the material will not be arranged on charts or posters. A workable plan of assembling all these contributions, by one pupil or by the entire group in boxes, envelopes, etc., will be very helpful. Much of the work can be accomplished during the seat work period following the oral discussion of the particular lesson in geography. Careful planning and at times directed class work are essential.

B. OUTLINE OF SUBJECT MATTER BY YEARS

1. Adaptation of Textbook to Course of Study

The approach and also treatment of a given unit of work, such as wheat raising or coal mining, will be necessarily different with different classes. However, it is essential in every case that the pupils, during recitation period, consider questions or phases of the unit of work which they are to study, then determine the particular questions or problems which they will consider. The textbook is introduced as

a source of information in answering these questions. Other sources will be specimens, pictures, maps, globes, bulletins, books and people.

Since the textbook will be a constant tool for acquiring information, the pupils must form at once economical habits in using it. If every child is trained at the beginning to find pictures, verbal matter and maps, through the use of the index, he will acquire a habit which is most essential in all his future work. This habit should be definitely established in that grade where the textbook is introduced for the first time.

In formulating a lesson plan for a particular unit of work, such as China, the teacher will first study carefully all that the geography textbook offers on China, in the way of pictures, verbal matters, maps, graphs, diagrams, and statistics, then supplement this study by reading from Ross's *Changing Chinese,* King's *Farmers of Forty Centuries,* and other books, and by seeking ideas in magazines such as *Asia, Literary Digest, World's Work, Our World, National Geographic News Bulletin,* as well as the *National Geographic Magazine,* and *Junior Red Cross News.* In addition to this research she will discover contacts in the form of products, pictures and books, which the pupils may have in their homes or elsewhere in the local community. In each case she will determine upon certain goals not only of geographic information, but also of abilities and attitudes which she believes the children can attain.

At the beginning of each unit of work, previous to taking up the work with her class, the teacher will find it advisable to make an outline which will indicate definitely those pages in the child's textbook which will be useful in the study of the particular unit to be taken up. This scheme is an aid for the teacher's use only. In no case, should these pages be dictated to the children. This plan is suggested so that the teacher may clearly see what parts of the textbook will have been covered. Thus she will be able to see that in the end, all the most valuable part of the text will have been covered, although the work may not have been taken in the exact order of the text. At the same time, the pupils by having been trained and required to use the index of the textbook, will have acquired a habit, an ability, even a skill in using a book to its fullest extent.

2. Cross Section of Content

The table that follows gives a cross-section of the geography work for years three to eight:

CROSS-SECTION OF GEOGRAPHY WORK

Year	Information	Abilities and Skills
III	People in local community in terms of food, shelter, clothing, travel, communication. People of other environments in the world: cold deserts, dry deserts, wet tropics, highlands, lowlands, islands.	Specimens Pictures Simple sketch map of local district
IV	English-speaking part of North America, United States, and Canada. Life activities in terms of the occupations in relation to geographic or physical factors. Outlying possessions of the United States. Journeys to various sections of United States, Canada, and elsewhere in the world.	Specimens Pictures Globe, maps, (wall and desk), textbook (index)
V	European countries: Study of life in homeland (territory in Europe) followed by study of life in important districts elsewhere in the world under that nation's jurisdiction. Europe as a whole, (Great Britian and Ireland may be taken here or in sixth year.)	Specimens Pictures Maps, globe, textbook, graphs. (other references optional).
VI	British Empire: Review sections already studied, then analyze life in other parts of world: China and Japan, Eurasia as a whole, Africa as a whole. Comparison of these continents, Latin America, South America—A B C countries, other countries, Caribbean district, Federation of Central America, Mexico, South America as a whole. North America as a whole. Comparison. Arctic and Antarctic regions. Comparison of all continents.	Specimens Pictures Maps, globe, graphs, textbooks. other books, magazines, newspapers.

VII	Keynote—Conservation. Analysis of life activities in local district, county, Pennsylvania. Analysis of life activities in United States. Approach and organization different from that used in the fourth grade.	Specimens Pictures, globe, graphs, books, magazines, newspapers. More detailed maps (geological survey and weather), and other reading matter, including statistics dealing with local district, county, Pennsylvania, United States.
VIII	Keynote—Interrelationships. Comparative study of the important countries of the world from standpoint of what each is *receiving* from and *giving* to other countries. This interdependence will be explained partly in terms of their specific geographical environments. Comparative study of the producing and non-producing areas of world's commercial products and comparative study of the avenues of transportation. Constant tracing of relationships between life responses and geographic influences throughout all this work.	In addition to specimens, pictures, maps, graphs, books, and other verbal and statistical matter noted previously, more detailed world maps and verbal matter dealing with various countries and commodities.

THIRD YEAR

Note: The teacher should plan the work in geography and nature study for the C class so that they are closely coordinated under the time assigned for geography. In the even calendar years the third grade work is to be given, and in the odd calendar years the fourth grade work is to be given. Each year, however, the map development lessons as noted below must be taken.

1. Content and Method

The material for this year will consist largely of local geography and associated general geography. In using this material the specific aims will be to have the children acquire geographical ideas, vocabulary, and principles through a realization of the local community's dependence on the outside world, followed by the studies of some people in other kinds of environments. Wherever possible the children are to feel that certain life conditions are due to the geographic facts of the given environment.

a. *Local Geography.* Articles of food and drink, clothing, means of shelter, travel, communication and play activities are the prominent elements in the child's environment.

The method used in studying a unit such as local transportation and communication would be approached through a pupil's relating his experiences on a recent trip or by the observation of vehicles that pass the schoolhouse. The following questions offer suggestions for class discussion.

(1) How do we get from place to place in our community?
  (a) Vehicles seen in the community
  (b) Relative advantage and disadvantage of each kind

(2) How do we travel to a distant place?
  (a) Means used
  (b) Relative advantage and disadvantage of each

(3) How do we communicate with friends near and far?
  (a) Means used
  (b) Advantage of each

(4) What workers made it possible for us to travel from place to place or to communicate with other people?
  (a) The kind of work that is done
  (b) What is made and how it is used

The above and other units of study related to the local community may be carried out by obtaining information through personal observation and by making inquiry of people associated with occupations, trades and local business organizations. Actual trips or ex-

cursions might be taken to nearby store, mill, farm, dairy, woods, stream, etc.

b. *People in Other Environments.* From a study of the relationships between the child's environment and his daily life as affecting his food, clothing and shelter, a study of other environments can be introduced and the results of geographic influences pointed out.

(1) *People Studied.* Life of people of the dry desert, cold desert (Eskimos), wet tropics (natives of the Congo or Amazon Valleys), highlands (Swiss or Swedes), lowlands (Dutch) will be studied. Additional studies may be made of the Japanese, Chinese, present day Indian, Filipinos, Hawaiians, etc., or people in places from where the pupils' parents have come.

(2) *Type of Question.* The Arabian—of what is his clothing made? Why of camel's-hair cloth? Why loose and flowing? Of what is his tent made? Why not of canvas? Why does he not live in houses as we do? What pet does he have? What games does he play? etc. The "why" side as explained in terms of climate and surface should be constantly developed.

(3) *Pictures.* These studies require pictures representing the lives of different people. Helpful pictures can be obtained from various agencies. The sets of pictorial geography which the National Geographic Society, Washington, D. C., sells at a low price are very valuable: Eskimo, Sahara, Indian, Negro in Africa, Life in China.

c. *Associated General Geography.* On trips and in the class discussions concerning why certain commodities can and cannot be produced in the local community, the pupils are having contacts—through actual observations and through pictures—with local surface features, sometimes distant, such as hills, mountains, valleys, vegetation areas, wet tropics, dry desert, cold desert; climate elements, such as local wind directions, storms, heat. Thus they are beginning to form concepts of physical geography, to which larger contributions will be made in later years, but at no time should the pupils be required to give definitions of these concepts. Underlying principles of life responses to geographic factors of climate, soil and surface, are constantly brought out by children. Wherever opportunity arises the pupils will be taught to understand directions or the points of the compass—by observing the direction from which the wind is blowing, the various positions of the sun (and stars if possible), the direction each child walks or rides in coming to school.

d. *Weather Studies.* In developing the ideas concerning the local weather, it is helpful to have the children accumulate a simple weather record, indicating the daily wind directions, heat conditions, conditions of clearness, cloudiness or rain, and any other special item. It is

suggested that the pupils make the observations just before the opening of school in the morning and also in the afternoon. Observations covering a period of two weeks during each of the three seasons (autumn, winter, spring) might be required of every pupil, making use of the intervening records kept by volunteers.

e. *Maps and Globes*

(1) *Development of a Simple Map.* A class after having had an experience in going to some place of interest may be asked to represent that experience in a drawing, namely, a map. The children are permitted to determine the symbols to be used, and are trained to formulate an explanation of these symbols in the usual place for a legend on a map, namely, at the bottom. When once a symbol has been chosen for "road" that same representation must be used throughout the drawing, etc. Gradually the essential features of the territory which they covered in their trip will be represented and labeled, also the cardinal directions shown on the floor, and a make-believe trip is taken with one of the children as guide.

The following day the teacher brings to class his representation of the trip, namely, his map on a large piece of light yellow wrapping paper. One or two symbols may be changed, but nothing has been labeled. The children then group around the map, as before, and the sheet is placed flat on the floor so that the map is still on the same plane as the original territory of the trip. They label every item of the teacher's map, but when they return to their seats as they all cannot see the map they decide to hang it up on the wall. This is the first time that the map has been placed in a vertical position. The reasons for choosing an actual experience, rather than a schoolroom, as the basis for their map, are no doubt obvious, such as emotional reaction associated with the trip.

To the teacher's map may be made additions to repreesnt adjacent territory. So much paper, however, may be required that the children are likely to suggest that in order to represent the whole village or town the drawing might be made smaller. This is their first notion of scale. Maps drawn to actual scale are not introduced until the fourth year. The sketch map may show location and comparative size of different fields, pastures, woods, house, gardens, barn, roads, kinds of fences and other things of value.

(2) *Use of Globe.* The use of the globe is optional. It may be used at the conclusion of the lessons on people of other environments or delayed until the review of people in other lands is taken in the fourth year. However, the globe may naturally be introduced as a means of locating the homes of these people, but it should not be an intensive drill on the location of the continents and their relative positions.

f. *Material for Expression Work.* Specimens, pictures, posters, charts, as well as stories of individual experiences of the children will

help to visualize the work. Contributions from the children, from other teachers, from friends, should be encouraged. This applies to matters pertaining to local life, as well as life in the foreign environments. The children will use this material as sources of information and also in expressing their ideas.

2. Outcome

a. *Knowledge.* Some of our wants and comforts are supplied to us by workers in our community.

Many people in far away places are working to make it possible for us to have food and drink, clothing, shelter, and to travel and communicate, because they have climatic conditions and surface conditions unlike ours.

People in one environment live differently from people in other environments. This difference is due largely to different kinds of climate and surface.

Little people in other environments play games and love stories just as our little people do.

b. *Abilities and Skills.* Ability to obtain ideas from pictures, specimens, and other people, concerning people and things in the local environment.

Ability to express ideas concerning happenings in the local environment, and about life in other communities by means of oral presentations, concrete material, drawings, and plays.

c. *Attitudes of Mind.* Interest in people and things in the local environment.

Desire to find out more about work, play and customs of children and grown-ups in other environments.

Attitude of kindness towards people and animals that contribute to our happiness by supplying our wants and comforts, or that serve people of other environments, such as a camel, horse, etc.

An attitude of like-mindedness in children all over the world.

FOURTH YEAR

1. Content and Method

The work in the fourth year deals with those life activities in the English-speaking parts of North America which are more or less closely associated with the lives of the pupils, with the outlying possessions of the United States, and with a few special places. Em-

phasis is to be placed on human activities but in considering why a certain kind of work is going on the pupils become acquainted with facts of climate (rainfall and temperature), soil, and surface (elevation and contour), and with products and population.

Children must be taught how to use and interpret the tools of geography. They must learn to obtain geographic ideas from pictures, from verbal (or word) matter, from wall maps and desk outline maps, as well as maps in the textbooks. They must further be taught in using a textbook by means of an index and table of contents.

a. *Life Activities in the English-speaking Parts of North America.* Since the majority of geography textbooks are organized on the basis of political selections, the following outline will show how the studies of occupations may be distributed throughout this year:

Middle Atlantic States—mining, farming and fishing; New England States—quarrying, manufacturing; Southern States—cotton, naval supplies, rice, sub-tropical fruits; Central States—cattle raising, meat packing, automobile machinery; Rocky Mountain States—mining, sheep raising and irrigation; Pacific States—lumber, salmon fishing, sub-tropical fruits; Alaska—fishing, mining. Dependencies: Panama Canal Zone—Supplies for ships; Phillippine Islands—copra; Hawaiian Islands—sugar, pineapples; Virgin Islands—coaling stations; Guam—coaling stations; Porto Rico—sugar.

(1) *Teacher's Guide in Studying Cities and Land and Water Forms.*

(a) A city will be located in relation to the resources of the surrounding country, the distance from the other centers of population expressed in terms of length of time and cost required to travel to those places by train, or in terms of mileage by automobile from the home town or from a specially designated starting point, and from its position in state or country, and on an important body of water.

(b) Mountains, plains, plateaus, valleys, will be located in a given section of the state, country, or continent, and in relation to their general position in affecting the temperature and rainfall conditions and the presence or absence of minerals which in turn influence the life responses.

(c) Rivers, lakes, seas, and other bodies of water will be located in relation to developed areas of mining, forest, fishing, recreation, agriculture, manufacturing, transportation industries, in relation to their use, or non-use, with their reasons for transportation; in relation to general position in the state, country, or continent.

(2) *Teacher's Guide in Dealing with Geographic Controls.* When surface is mentioned elevation and shape of the land should be given when possible. In the analysis of climate, mois-

ture and temperature should be studied and wherever possible explained in terms of the latitude, altitude and nearness of the place to large bodies of water. The physical character of soil should be discussed.

(3) *Teacher's Guide in Studying Work Activities.* Throughout all of these studies, specimens, pictures, and maps should be used constantly.

(a) Agriculture—wheat, corn combined with cattle industry, cheese, sugar, rice, cotton, tobacco, fruit, vegetables, sheep, pigs

(b) Fishing—cod, mackerel, shad, salmon, oyster, seal

(c) Hunting—squirrel or fox

(d) Forest industries—lumber, maple sugar, naval stores

(e) Mining and quarrying—coal; ores—iron, copper, gold and silver, oil and natural gas; building stones— marble, granite, slate and clay.

(f) Manufacturing: Textiles—cotton, woolen, silk, clothing, shoes, carpets, furniture, paper; iron and steel goods—railway equipment, ships, agricultural implements.

The possible development of a study of one of these industries follows: (1) Raw materials needed—kind, sources with reasons (climate, surface, etc). (2) Other necessities to carry on the industry—labor, machinery, power (coal district, "tall" lines, etc.), transportation facilities, markets. (3) General type of work performed, for example in the case of textiles—spinning the thread into yarn and perhaps dyeing the yarn, weaving the cloth, dyeing the goods, making garments, carpets, etc. (4) The sections of the United States and Canada where this industry is carried on, together with a summary of the reasons why it is carried on there. (5) Distribution of manufactured articles—distributing and receiving places, avenues and means of transportation.

(g) Commerce and transportation. Means of transportation—Land—railroads, natural highways; water—natural rivers, lakes, oceans, man-made canals; air—airplane and hydroplane routes.

Articles of exchange: exports and imports between the United States and Canada.

(4) *Selecting Units for Study.* From the above units those which are considered worth while for the children of a given school district to know are to be chosen. Wherever advisable, for example with iron, the pupils might list both small and large articles made therefrom so that they might learn to associate the mineral with articles in their everyday life and also realize the wide variety of use to which the mineral is put. The study of one mineral might be made from its raw product state to the finished product. If, for example, iron and steel goods is the study, the children should also discover the manufacturing districts associated with these goods: Bethlehem, Pittsburgh, Youngstown, Cleveland, and Birmingham.

(5) *Learning to use the Textbook.* Definite objectives should always be determined by the pupils and teacher before using the textbook. It should always be regarded as the supplement and support to the oral development work. At times it answers a question which could not be determined by the pupil's present knowledge, or states more clearly and satisfactorily an idea which has been found by experience or observation, or settles a disputed point. The textbook is a constant aid through its pictures, verbal matter, maps, graphs and statistics; but it should always further the pupil's self-activity. Moreover, the children must be trained at the start to use the index, so that seldom will the teacher give the page reference. The children should have acquired the habit of finding the page by using the index.

b. *United States as a Whole.* With a map, preferably a blackboard, outline the various productive areas of the United States—farming, grazing, dairying, fruit growing, lumbering and other forest industries, mining and manufacturing. This might be done by having the class conduct over our country a visitor from a foreign land who is interested in the work going on in the United States.

A brief study should be made of the outlying possessions of the United States—Alaska, the Philippines, Hawaiian Islands, Porto Rico, Guam, and the Virgin Islands.

e. *Teacher's Guide in Studying a Country*

(1) Population. State the distribution reasons for the densities, in each case in terms of occupations, physical features, prominent cities.

(2) Distribution of work activities.

(a) Agricultural areas and crops

(b) Fishing districts; inland and ocean—varieties of fish

(c) Forest industries—districts and kinds of products

(d) Mining and quarrying districts—kinds of minerals

(e) Manufacturing areas—kinds of products

(f) Transportation routes; land—railroads, national highways; water—navigable rivers, canals, lakes, combinations of all ways; air routes—district, continental, world

(g) Other means of communication; telephone and telegraph; cable—distributing centers; radio—broadcasting centers

(h) Recreation districts—mountains, seashore, lakes

(i) Special places of interest in the country

(j) Climate: Distribution of rainfall in terms of prevailing winds, elevation, nearness to large bodies of water; temperature and causes of variation; winds in relation to wind belts of the world

(k) Physical features: highlands, lowlands, coastline, river systems

d. *Canada as a Whole and Comparison with United States.* Throughout this study the climate and surface, soil to a certain extent, mineral deposits, position in relation to developed regions, will be brought in as explanation in part at least of the work activities going on in Canada.

e. *Journeys in America.* As approaches to certain industrial cities, in connection with them or as separate units, places of scenic interest may be studied. Pictures of some kind are absolutely essential. Timetables, railroad folders, and other guides, such as Baedeker's and Muirhead's Blue Book of the United States and of Canada are helpful sources of reference.

These places are suggested: Cities—New York, Boston, Philadelphia, Toronto, Chicago, New Orleans, San Francisco; Niagara Falls, in connection with study of Great Lakes; the Garden of the Gods in connection with mining in the West.

f. *Journeys in Other Parts of the World.* The pupils will use the globe and world maps for routes and physical maps for discovering difficulties likely to be met on the trips. Rainfall and temperature maps of the continent visited would also be very useful. Of course pictures and specimens are necessary for making the trips real to the children.

g. *Associated General Geography.* The pupils will become familiar with the prevailing westerly winds and their influence on life in the United States and Canada. The influence of the dry calms on life in southern United States will also have been observed. In this connection the study of latitude may be clinched as distance north and south of the equator and distinction made between north latitude and south latitude. The degree as a unit of measure will be definitely established. Games dealing with the location of places by means of latitude will show its significance. All places on the fortieth parallel north and south latitude might also be discovered by the pupils and life in these places compared.

Study of longitude may be introduced but should not come at the same time as the work on latitude, otherwise confusion will arise in the minds of the pupils. The fact will be established that it is a means of determining distance east and west of a meridian passing through a given place, Greenwich, England. Distinction between east and west longitude will be made. The world map will be constantly used in this study.

Essential place geography will be stressed throughout all of the units of work. Some games and drills might be introduced during the term and also at the close to clinch this aspect of geography.

2. Material and Expression Work

In addition to specimens and pictures the textbook is also used as a geographic tool. Every pupil should early in the school term be able to use effectively the index and table of contents. The textbook becomes one of the chief sources of information but not to the exclusion of other sources. Moreover, the development of the work should not be determined by the textbook, but by the class discussion of the unit in geography.

Wall maps of North America, especially physical and political are necessary for this work as are outline maps. A blackboard outline map of North America is particularly helpful in testing the pupil's knowledge.

After the pupils have been using the North American wall maps and the physical and political maps in their textbooks, they may find occasion when they desire a sketch map as means of expressing some ideas. This is the opportune time to encourage the pupils to sketch such maps. In due time some pupils may be able to sketch simple but proportionate maps from memory.

3. Outcomes

a. *Knowledge.* The United States and Canada have large and small communities of workers. The results of their labors are widely distributed over these countries and over the world. Work activities, especially from the standpoint of the kind of industry and their representative products, are dependent to a degree upon certain geographic conditions which determine *how, where* and *why* certain products are produced in certain communities of the United States and Canada.

b. *Abilities and Skills.* To know how to use books by using the index. To use maps in getting ideas and expressing ideas. To present ideas by means of posters or booklets.

c. *Attitudes of Mind.* Appreciation of the contributions made by the many workers in field, forest, mine, factory, and elsewhere, on land and water, especially in the United States and Canada.

FIFTH YEAR

Note: Alternation should be used in the geography for the B class. Fifth grade work should be given in the even calendar years and sixth grade work should be given in the odd calendar years. Time from the geography period should be used for the work in nature study as it can be given.

1. Content and Method

a. *Europe and Some Asiatic Countries.* The work for the fifth grade deals with the prominent continental European countries. The entire British Empire is studied in the sixth grade, but the British Isles may be taken in the fifth grade. The pupils will begin with a study of the homeland in Europe and follow it up with lessons on that country's possessions and places of influence throughout the world so that all the territory within the control of that country is properly associated. The emphasis will not be placed on the political phase of the situation, but on the life of the people in these places and the analysis of the life activities there as they are influenced by the geographic factors of climate, surface, soil, mineral deposits, position relative to developed regions of the world.

Since many of the textbooks may not show the changed conditions of the World War, the following list is given of territory which has been taken from Germany. Alsace-Lorraine; Danzig; Schleswig; all of her colonies; German Poland; Czecho-Slovakia, indicated as Bohemia on the old maps; part of Upper Silesia. Since the boundaries of Europe have been changed a modern map of Europe (wall size), should be used. The National Geographic Society has issued several maps which will be of assistance and can be obtained at a low cost. A very large map can be obtained from the Superintendent of Documents, Washington, D. C., entitled Europe and Asia Minor, M. I. D. S. G. S. No. 62, at a very low cost.

b. *More Important European Countries.* The following countries are considered worthy of definite analysis: Czecho-Slovakia, Denmark, France, Germany, Belgium, the Netherlands, Greece, Italy, Bulgaria, Rumania, Russia, Sweden, Norway, Switzerland. As part of the study of each of these European countries, the life in their various possessions and other places where they have influence should immediately follow. In each case, in this way, the children acquire at the start accurate concepts of the extent of that country's natural resources and influence.

c. *Less Important European Countries.* A few important ideas in connection with each of the smaller countries of Europe should be associated with the following countries: Albania, Austria, Esthonia, Finland, Latvia, Lithuania, Hungary, Luxumberg. Poland, Portugal, Spain, Yugoslavia. The general location of all the countries will be acquired through the constant use of a map.

d. *Suggested Treatment for a Larger Country.* The following suggestions will be helpful in making the more intensive study of the larger countries. After an introductory discussion of the pupil's

knowledge or association with France, certain problems should be determined upon by the class: France and the places where she has influence.

(1) Approach—Our recent associations with France. Show our part in the rebuilding of France.

(2) Analysis—

(a) *The Homeland.* What the people do in France and why; chief characteristics (art and music correlations if desired); their sources of food; their transportation facilities, what they give us. In connection with each of these phases of their life, the associated geographic controls of climate, surface, soil, will be bought in. Wherever it is feasible, conditions found in France will be compared with similar conditions in their own country.

(b) *Other Parts of the World Which France Controls.* Where they are, their value, reasons for their products, and facts of their geography. This will include Algeria and Tunis, French Sudan, French Equatorial Africa, French Southeast Asia, Madagascar, and French Guiana.

c. *Prominent European and Asiatic Countries.*

(1) Study the following countries together with the chief districts in the world under their control: Belgium—homeland in Europe, Belgium Congo; Netherlands—Holland in Europe, Dutch East Indies, Dutch Guiana; Italy—homeland in Europe, Sicily, Sardinia, Libyan (Tripoli, etc.), Eribea, Italian Somaliland. As a basis for comparison with each of these individual countries the facts concerning the United States should be used.

(2) Russia may be taken as a single unit of varied responses to different environments. The children must be aided in realizing that individual nationalities in former Russia have established new nations, and that Russia in 1923 is different from Russia in 1914. Among these smaller countries may be listed Esthonia, Finland, Latvia, Lithuania, Ukraine, and the Far East Republic.

(3) The British Isles may be taken as a unit at this time or deferred until the sixth year and studied in connection with the "British Empire."

(4) *Journeys in Europe.* The various life contacts between the various places in Europe may be more clearly seen by the pupils if they take such trips as "Up the Rhine," "Down the Danube," and "Across Russia from Petrograd to Odessa."

(5) *Asiatic Countries.* In connection with the study of Russia, the child is naturally led into Asia but he should understand that Siberia is now an independent republic, the Far East Republic.

It is advisable to have the pupils get some notion of the cultural achievements of these Asiatic, as well as European coun-

tries, in addition to the characteristic customs of the people. They will acquire a sympathetic attitude towards other people and not consider them peculiar just because they do not do things as the people do in America. If relationships are constantly traced between life responses and the factors of environment, a scientific attitude of mind is acquired by the pupils. There should be a constant endeavor to seek the truth about these people.

f. *Continental Europe as a Whole.* After this study of the countries of Europe has been completed, the pupils should assemble the essential geographic facts and principles concerning the European continent. The following outline will be suggestive for the teacher:

(1) Population: Reasons for distribution—occupations, physical features, prominent cities, political divisions, racial contacts with United States.

(2) Distribution of work activities: Agricultural areas—crops; fishing districts—inland; ocean—varieties of fish; mining districts—kinds of minerals; manufacturing areas—kinds of products; transportation routes including steamship connections with the United States—land—railroads; national highways; water—navigable rivers, canals, lakes; combinations of land and water ways; air routes—continental, world; other means of communication—telephone and telegraph; cable distributing centers; radio—broadcasting centers.

(3) Climate: State the effect on human life in each case.

(a) Moisture: Amount and distribution; territory having slight rainfall; territory having medium rainfall; territory having heavy rainfall. In each case explain these conditions in terms of the prevailing winds, the elevation, and the nearness to the large bodies of water associated with each continent.

(b) Temperature: Territory having great variation from season to season, between day and night. Explain in terms of distance from equator and nearness to large bodies of water.

(c) Winds: Territory situated in a given wind or calm belt of the world. Latitudinal position with the resulting effect on moisture and temperature.

(4) Physical Features:

(a) Prominent highland systems and their influence on life activities; places of highest elevation.

(b) Prominent lowlands and their influence on lift activities.

(c) Coastline—characteristics, resulting harbors.

(5) Large River Systems: Situation, physical features, rainfall conditions.

(6) Area Compared with that of Other Continents: Latitudinal extent—mention also position in frigid, temperature, torrid (light) zones; longitudinal extent.

g. *Associated General Geography.* Knowledge of the location and influence of the following wind and calm belts of Europe will have been accumulated during the work and will be stressed towards the close of the term: Prevailing westerlies, dry calms, northeast trades, wet calms, as they influence life in Euurope and in those parts of Asia and Africa, that have been studied. The following problems may be suggestive as reviews or as initial studies:

(1) How has Denmark become the world's teacher in the dairy industry?

(2) Why has Belgium been called one of the workshops of Europe?

(3) How does Poland resemble our north central group of states? (Make posters or booklets.)

(4) Why are more than half the people of mountainous Italy farmers?

(5) Why is Czechoslovakia called the "keyland" of Central Europe?

(6) Why has France never become one of the greatest manufacturing and commercial nations?

(7) Why do so many people visit Europe? Outline an imaginary trip that you have taken and indicate why you went to each place and what you found there. Use specimens, pictures, graphs, maps and word matter.

2. Material and Expression Work

In addition to the textbook, other books on Europe, Asia, and Africa, will be useful. This is true also of specimens and pictures dealing with these countinents. Physical wall maps of Europe, Africa and Asia will be essential.

3. Outcomes

a. *Knowledge.* Of areas of production in Europe and in certain parts of Asia and Africa; location and significance of leading cities, rivers, highlands, lowlands, avenues of transportation; location of the countries of Europe and Asia in their relation to each other; and relationships between life activities in these various parts and the factors of their physical environment—especially the wind and calm belts.

b. *Abilities and Skills.* To interpret and construct graphs. To construct carefully and accurately organized posters, booklets, exhibits.

c. *Attitudes of Mind.* Interest in Europe as the home of the ancestors of Americans and as one of the leading centers of science, art and literature. Sympathetic attitudes towards customs of other people which are different from our own. Appreciation of what others do for our welfare and happiness.

SIXTH YEAR

1. Content and Method

The work for this year will deal with China and Japan, with the British Empire; with South America, Central America and Mexico; with the Arctic and Antarctic regions; a comparative study of all the continents.

a. *Suggestive Treatment for China, Japan, India*

(1) *China*

(a) Approach: Newspaper clipping or product from China.

(b) Analysis: The people—their work (associate with these activities the influencing geographic controls of climate, surface, soil); art will lead to brief notion of their history; recent development and future possibilities.

(2) *Japan*

(a) Approach: Japanese print, Japanese legend, study of earthquakes or volcanoes.

(b) Analysis: People—treated similarly to China. Comparison of the two countries and with the United States.

(c) Japanese Empire—Japanese Islands, Korea, Formosa, some Pacific Islands.

(3) *India*

(a) This country might be taken up in similar fashion and then later used as an introduction to the British Empire.

(4) *The Great Monsoon Countries of Southeast Asia*

(a) Specimens, pictures, word matter, maps and graphs, have been organized into posters, booklets, or exhibits by some pupils or classes in connection with these lessons.

b. *Each Continent as a Whole.* Since the important countries of Asia have now been studied, it will be advisable for the pupils

to assemble the essential geographic facts and principles concerning Asia. Then other continents as a whole might also be considered.

(1) *British Empire.* It is because this is such a big "world unit" that it was reserved as the last of the great European world countries to be studied. It may be approached through a historical reference, a product such as a Sheffield knife or package of Ceylon tea. The following analysis should be made:

(a) Life in the British Isles. Characteristics of the people, in relation to facts of location, surface, climate and soil.

(b) Intercourse with her colonies, the United States, and other countries.

(c) Contributions made to the world welfare.

The British Empire consists of Great Britain, Ireland, India, Dominions of Australia, Canada, Newfoundland, New Zealand, Union of South Africa, and many colonies, protectorates and dependencies. Among these places may be mentioned the following: St. Helena, Gibraltar, Malta, Cyprus, Aden, Ceylon, Strait Settlements, Hong Kong, British Borneo, New Guinea, Tasmania and other Pacific Islands.

The study of the British Empire may be simplified by arranging the territories according to the climate and vegetation belts in which they are situated. A brief study of the world map showing the English possessions and spheres of influence will suggest possible organizations. In this way, the pupils gather not only the essential facts concerning life in these places but also see more clearly the relationship between life and climate. The continents of Africa and of Australia might now be considered as wholes. It will be well to review Africa on the basis of its climatic and vegetation belts.

(2) *Latin America*

(a) A more intensive study will be made of the A B C countries, namely Argentina, Brazil and Chile, than of the other countries.

In developing life in these countries, the geographic controls of climate and surface and the natural resources will be quite typical of South America. The approach to Argentina will be through wheat or cattle, to Brazil through coffee or rubber, and to Chile through nitrate of soda. Work, development of their resources, future possibilities, contacts with our own country will be studied.

Andean countries including a study of the Incas of Peru will be treated as time permits.

(b) Caribbean countries as a unit for study includes not only the countries of northern South America and of Central America, Mexico, and West Indies, but also permits a splendid coordination of the life responses of southern United States with these districts. The Federation of Central America will be studied here. This includes Guatemala, Salvador, Honduras, Costa Rica.

(c) Mexico is a splendid climax of the study of Latin America because it brings the children close to our own country. Moreover, it presents many varieties of life as a result of varied geographic controls, both from the standpoint of altitude and latitude. The approach will be through pictures, magazine articles, and imaginary trips.

(3) *North America as a Whole.* The facts and principles of North America as a whole may now be assembled. All the continents of the world may now be compared.

(4) *Arctic and Antarctic Regions.* At this age the child loves adventure, hence trips to these parts of the world will be valuable.

(a) *North Pole.* The approach will be through pictures, magazine clippings, and tracing Peary's trip to the North Pole in 1909. Trace Amundsen's trip to the South Pole. Contrast Antarctic with Arctic regions.

(5) *Wind and Calm Belts of the World.* The life reactions to all great wind and calm belts of the world will have been studied. In this connection the world vegetation belts, deserts, grasslands, forests, will be relieved and the distribution of population also clinched.

(6) *General Geography.* At this time the meaning and value of latitude may be finally clinched and compared with the concept and value of longitude. The International Date Line will also be considered. Essential facts of the earth as a whole will be established as to shape, relative size, movements, zones or belts, continents and oceans.

Since the pupils have studied life conditions in many parts of the world, they may now make some generalizations. The following problems are suggested: Why are lowlands most frequently the regions of greatest human activity? How do the mountains sometimes promote and sometimes hinder progress in civilization? Of what value to man are lakes? What are the geographic conditions which control the growth and development of plant life?

2. Material and Expression Work

Reference books for teacher and pupils, specimens, magazines, carefully chosen advertising pamphlets, government and other pictures, publications, and statistics will be useful. Printed wall maps of the world, North America, South America, good physical maps, and outline maps of wall and desk sizes filled in by teacher and children as supplements to printed maps form a useful part of the equipment. The following special maps will be useful: distribution of rainfall, wind and calm belts, products, and transportation routes. Relative areas can be realized by comparison with an accepted standard such as the area of the United States or of Pennsylvania. Lantern slides can be borrowed from the State Library and the Philadelphia Com-

mercial Museum. These are very valuable in developing as well as clinching lessons in geography.

3. Outcomes

a. *Knowledge.* Knowledge of contributions to our comforts and luxuries made by Latin-American countries; of the relation of production areas to physical factors of Asia, Africa, Australia, South America, North America; of the effect of location, winds and ocean currents upon the climate; of the relation of coast to commerce; of comparisons to all continents of the world; of conditions in the Arctic and Antarctic regions.

b. *Abilities and Skills.* Greater ability on the use of material as a source of information and as a means of expressing ideas should have been developed. This material includes specimens, pictures, globes, maps, sketches, verbal matter, graphs, charts. Growing ability to investigate and organize the results in the solution of problems. Ability to seek material at home, in the library, in entire community and by letter, places all over the world, which will enrich the study of geography in the classroom.

c. *Attitudes.* Attitudes of interest in problems confronting Great Britian and countries of the southern hemisphere, as well as Mexico, and appreciation of the part education plays in the progress of a people should result from this year's work.

SEVENTH YEAR

Note: For the A class the eighth grade work will be given in the odd calendar years and the seventh grade work will be given in the even calendar years. The last half of the eighth year will be devoted to science, with emphasis on the elementary phases of agriculture.

1. Content and Method

The development of geographical ideas, vocabulary and principles will come from a study of a home community, including the country, of Pennsylvania, and of the United States. The keynote throughout the work should be conservation.

a. *Local Geography.* This study will introduce in their proper relationships the local geographic or physical factors of climate, surface, soil, mineral deposits, and position relative to developed regions. The pupils will acquire definite knowledge of the kind, number and location of means of livelihood in the local community and determine reasons for the location there. They will know what materials are

required to carry on these activities and what finished products are turned out. At the same time they will have discovered the means of transportation and communication within the local district.

The teacher should make an outline similar to the one given below for the study of Pennsylvania and follow it in the study of the local district, as related to work activities, population, essential geographic features, including temperature, rainfall, surface, soil, drainage, and mineral and other resources. Throughout the lessons such concepts of physical geography as are related to the economic, social, and cultural life of the community will be reviewed as class needs require.

b. *Pennsylvania.*

(1) *Approach.* A trip across the State on the Pennsylvania railroad, over famous Horse Shoe Curve near Altoona or over the William Penn or Lincoln Highway, or to a specific scenic center such as Mauch Chunk, Delaware Water Gap, Eaglesmere, Bedford Springs, Cambridge Springs. Use railroad folders.

(2) *Teacher's Guide in Studying Pennsylvania.* Work activities, and how the geographic factors of Pennsylvania have influenced them and also how man has modified these factors. Variety and location of industrial and economic activities.

(a) *Extracting Industries*

1. Mining: coal, petroleum and natural gas, clay.
2. Quarrying: cement rock, slate, limestone, sandstone.
3. Lumbering: original forests; present situations.
4. Agriculture: general farming—wheat, oats, etc.; dairying—milk, butter; fruit growing—apples, berries, etc.

(b) *Transforming or Manufacturing Industries.* Iron and steel goods; textiles; glass; refining oil; refining sugar.

(c) *Distributing Activities*

1. Railroads: Kinds—(see maps, free from Public Service Commission, Harrisburg) steam, electric; names and extent; amount and character of business.
2. Waterways: Navigable rivers; canals in use (also abandoned ones).

(d) *Recreational Activities*—Kinds

(e) *Population*

1. Distribution—Number (8,720,017—Census 1920) Origin—native-born; foreign-born with contribution made by each foreign-born and native-born group to the welfare of Pennsylvania.

(f) *Cities:* Concept of each city will include not only location in relation to surrounding resources and receiving and distributing facilities and situation in Pennsylvania, but

also the distances from other centers of population either in the state or elsewhere in the United States.

The teacher and pupil will choose those cities which they consider of sufficient importance.

(g) *Essential Geographic Factors of Pennsylvania:*

1. *Climate*, including latitude, prevailing westerlies and path of cyclonic storms, nearness to Great Lakes and Atlantic Ocean, as explanation of the climate.

a. Rainfall—yearly range, changes daily and seasonal.

b. Temperatures—yearly range, changes daily and seasonal.

c. Influence on life activities in Pennsylvania.

2. *Surface.*

a. Appalachian Mountains and Valleys—elevations; position and extent and trend; resulting influences on life in Pennsylvania.

b. Plateaus—Piedmont, Appalachian—position and extent, elevation and slope, resulting influence on life in Pennsylvania.

c. Plains: Atlantic Coastal, Great Lake—position and extent, elevation and slope, resulting influence on life in Pennsylvania.

3. *Soil.*

a. Variety: Physical structure, chemical composition.

b. Influence on crops and run-off.

4. *Drainage Systems.* Resulting influences on life in Pennsylvania.

5. *Mineral Deposits.* Kinds, together with location of each; work necessary to extract each variety; to distribute each variety; rank of Pennsylvania among States; resulting influences on life in Pennsylvania.

(h) Location of the important economic districts of Pennsylvania in relation to the surrounding territory—land and water in relation to the United States as a whole.

(i) Reasons for the development of Pennsylvania as a mining, manufacturing, commercial, educational, recreational community. Policy and work accomplished in the conservation of Pennsylvania forests, fish, game, water power.

(j) Probable and possible future developments in Pennsylvania along industrial, commercial, economic, social, cultural, recreational lines.

(k) Throughout these lessons, concepts of those physiographic forms which occur in Pennsylvania will be reviewed as class needs require, such as valley, mountains, harbors, rivers.

c. *United States*

(1) *Approach.* The work may be approached as outlined from the standpoint of political divisions and reviewed on the basis of natural regions.

(a) Political section as given in textbook may be used.

(b) Natural regions: Atlantic Coastal Plain—Maine to Texas and from Atlantic Ocean to the Piedmont; Appalachian Highland—Maine to North Alabama, including Piedmont Ridges and Allegheny Plateau; Central or Mississippi Valley—from western base of Appalachian Mountains and eastern base of Rocky Mountain region; Rocky Mountain Regions—mountains and basin; Pacific Slope—crest of Cascade Mountains and Sierra Nevada Mountains to the Pacific Ocean.

(2) *Teacher's Guide in Studying the United States*

(a) Sections and regions of the United States.

(b) Brief survey of each region.

1. Variety and location of each industrial and economic activity; extracting industries, as mining, quarrying, lumbering, agriculture; transforming industries, as manufacturing, refining oil or sugar; distributing activities by rail, by water; recreational activities—summer, winter, all year.

2. Distribution of population.

3. Location of cities.

(c) Essential geographic or physical factors of United States.

1. Climate—the controlling factors of latitude, altitude, and nearness to bodies of water.

a. Rainfall: Yearly distribution.

b. Temperature: Districts having great seasonal changes; slight seasonal changes; great changes from day to night; slight changes from day to night; influence on length of growing seasons.

2. Surface—Prominent mountain systems, plateaus, plains and valleys.

3. General Drainage System—Atlantic, Mississippi, Pacific.

4. Mineral Deposits—Location of each variety; coal, iron, copper, gold and silver ores, petroleum and gas.

5. Resulting Economic Areas throughout the United States—Mining, quarrying, lumbering, fishing, agriculture, manufacturing, distributing avenues, and recreational districts.

6. Commerce of the United States—Domestic and foreign exchange, avenues of transportation.

7. Man's Modification of the National Environment in the United States—This will also include the achievements in conservation of natural resources, including reclamation of non-productive areas through irrigation projects in the West, draining the Everglades in Florida and utilization of water power.

8. Contributions other than economic products which the United States makes to the world welfare.

(d) *Place Geography.* Certain definite facts and principles are essential. In the case of cities and rivers it is necessary that the pupils can locate them in relation to other centers of population and industry, and in relation to areas of production and distribution, rather than merely as being in the southeastern part of a state or on a given body of water. In this connection filling in the location of places on outline maps is most helpful.

It is most essential that children know *how* to use the various symbols on a map and be given sufficient experience in applying this ability than that they be able to reproduce all the facts on a map. Ability to locate readily on maps the leading cities, rivers, mountains, railroads, highways, as well as productive areas of Pennsylvania and the United States, is essential.

(e) Since life in so many parts of the United States has been influenced by glacial activity, a study of glaciers may be taken, if it suits the interest and development of the pupils in a given class. It is advisable to approach geography from the human aspect. An analysis of man's activities in a given place necessitates a knowledge of the physical environment; thus the children learn how man has responded to the influence of surface, climate, soil. But children must also see how man is controlling his environment and how he is modifying the conditions of a locality, to further his own progress.

2. Material and Expression Work

In addition to a regular modern textbook, it would be worthwhile to have a few copies of other modern textbooks available for the pupil's reference use. Additional reference books, current magazines, carefully chosen advertising matter, government and other publications will be very helpful as sources for pictures, maps, verbal matter, graphs, statistics, and charts. Wall maps, especially good physical maps, of the local district, county, Pennsylvania, United States, and the world are essential. Outline maps made on slated material are economical as well as a very satisfactory means of representing ideas. Base or outline maps on paper are valuable supplements to the printed maps. These might be filled in to show the distribution of rainfall, population, products, transportation facilities, etc. Cross

section paper, large and small size, will be useful in making graphs to indicate comparative studies of population and production.

3. Outcomes

a. *Knowledge.* Outstanding geographic facts and principles concerning life in the local community and in Pennsylvania. Essential geographic facts and principles, concerning life in the United States, studied on the basis of its natural regions, and also of the political sections as followed in the pupil's textbook or of the economic districts as organized by the United States census.

b. *Abilities and Skills.* To use geographic tools of a more detailed nature, such as geological survey and weather maps, and United States Census reports, as means of acquiring ideas pertinent to a problem in hand. To apply geographic principles in the solution of problems confronting the local community, Pennsylvania, and the United States.

c. *Attitudes.* Disposition to obtain accurate geographic information in dealing with a problem, and weighing evidence carefully before drawing conclusions. Appreciation of the place in the world which our country holds from the standpoint of its economic resources and its relation to the interdependence among people. Appreciation of the importance of a policy of conservation.

EIGHTH GRADE.

1. Content and Method

The work in this year deals with those geographic ideas and principles involved in a comparative study of the world countries from the standpoint of what they contribute to the world's welfare and what they receive from other countries for their own welfare and of the producing and non-producing areas of the world. The United States will serve as a basis of comparison throughout this work.

a. *Comparative Study of Countries.* The following countries will be studied: British Empire and France, and their sphere of control or direct influence; Netherlands and her colonies; Scandinavia; Denmark; Belgium; Germany; Czechoslovakia; Austria; Switzerland; Poland; Baltic countries (Finland and other sections formerly parts of Russia); Russia; Bulgaria; Rumania; Greece; Yugoslavia; Italy; Hungary; Portugal; Spain; Japan; China; Turkey and other Asia Minor countries; Egypt; Mexico; the Central American countries; Argentine; Brazil; Chile; Peru; Ecuador; Colombia; Venezuela; Bolivia; the United States and her outlying possessions; Canada. The pupils will use the basis, ideas and impressions gathered in their previous studies

of these people, and also introduce new viewpoints in this more advanced analysis of life in these countries.

In making the comparative study of the prominent countries of the world, their contribution from the standpoint of art, music, and literature, should not be neglected in this emphasis of so-called contribution to material needs. At this stage of his development the child can appreciate and understand the whole life of a people. China has not been an absolutely ignorant nation all these centuries. She has developed an art and certain techniques, created inventions, which have definitely contributed to the progress of the world. These achievements should be brought out during this comparative study. Even the Eskimo has expressed himself artistically in the decoration of his implements and weapons.

Primitive people ought not to be neglected. The pupils should know where these are still to be found and whether or not they are contributing anything to the necessities and comfort in other parts of the world. In this connection a brief study of the American Indian, both of North and South America, is offered as an elective topic for discussion. In our own country there are distinct communities of Indians, and our boys and girls should have accurate notions in reference to this element of our modern population.

b. *Teacher's Guide for Checking Pupils' Knowledge of a Country's Comparative Place in the World.*

(1) *Natural Resources of a Given Country*

(a) Varieties—agricultural, fishing, mining, forest, water power, transportation (including good harbors). Reasons for their presence wherever possible.

(b) Amount compared with similar resources in other leading countries, such as the United States, Great Britain, France and Germany, etc.

(c) Policy and method of conserving these resources; development of these resources; stage of development compared with that in other countries; value of the chief products compared with the value of these products in other countries; resulting great industries and centers; possible future developments.

(2) *Contributions Made to Other Countries.* Leading commercial products; countries receiving these contributions; avenues of transportation or distribution; other forms of contributions, art, literature, education, immigrants; possible future contributions.

(3) *Contributions Received from Other Countries.* Kinds of products received; countries making these contributions; avenues

of transportation—routes and commercial centers; other contributions received; possible future contributions from other countries.

Constant use must be made of a large wall map of the world. In connection with comparative analysis of countries, the essential facts of their geography and the important geographic principles necessary to interpret the life responses in each country will have been clinched by the pupils.

c. *Comparative Study of Producing Areas of the World.* Areas dealing with the following commodities will be considered by the pupils: wheat, corn, rice, tea and coffee, sugar, raw cotton, copra, hemp, iron, ore, copper ore, gold, silver ores, petroleum, and natural gas; textiles, cotton, woolen, silk, linen goods, steel, cattle, swine, wool, fish, raw silk, coal.

In this connection will also be studied the great avenues and means of transportation and communication on water, land, and in the air, and the distribution of population throughout the world. In the end, the wind and calm belts as well as heat belts of the world, ocean movements, and the large surface features of each continent will be clinched and compared in respect to their influences on life.

Work activities as followed in productive areas may be classified as follows: Extracting—mining, lumbering, fishing, agriculture; transforming or manufacturing—textiles, iron, metal, leather, chemicals; distribution—transportation, communication.

By using the index and table of contents, the pupil may discover from verbal matter and maps in the textbook where areas producing a certain commodity or carrying on one of the above industries or occupations exist. Searching of additional books, government publications, magazines, newspapers, may be necessary to complete this investigation. In every case the pupil will first have determined a reason or purpose in setting out on the given study.

d. *Comparative Study of Large Non-Producing Areas.* The pupils should be able to designate broadly which areas are now in the nonproductive class. They should also be familiar in a general way with those places in which experiments are now being conducted in connection with possible future developments.

(1) Cold desert, localities—northern parts of European, Asiatic, and North American continents, and islands in these sections of the world; mountain areas above the tree line; glaciers—value in future times, mineral resources, development of water power.

(2) Dry desert, localities—Sahara, Arabia, Tibet, Rocky Mountain basin areas, Atacama, Kalahari. Problems to be solved: Man's adaptation—irrigation, dry farming, special crops.

(3) Wet tropics, localities—Amazon Valley, Congo. Problems to be solved—swamps, disease.

e. *General Geography.* Since the pupils have been tracing during this study the relationship between life responses and climate, surface, soil, mineral deposits and position, relative to developed regions, they are now ready to clinch their knowledge to these geographic or physical factors. Hence, the location of the various wind and calm belts of the world will be finally established: wet or equatorial calms, northeast and southeast trades, dry calms, prevailing westerlies. The resulting vegetation belts will also be established: tropical forests, grasslands, dry deserts, temperate forests, cold deserts. In this connection the temperature belts will also be introduced since temperature is a factor in determining vegetation.

The general ocean movements and their influence on life may be traced at this time. Glaciers and their influence on life may be considered if this topic suits the needs and interests of the pupils.

f. *Map Work.* Since the map is an economical means of expressing many ideas and since the pupils will be assembling the many ideas which they have accumulated, there is need for much map work by the pupils in the eighth year. This includes the use of wall maps and desk maps. World maps of all kinds will be useful, especially those showing physical features, distribution of rainfall, temperature belts, transportation routes, areas producing the various commodities studied in this year. The modified boundaries as a result of the World War should in each case be shown, especially in the case of the maps of the continents—Europe, Africa and Asia.

The pupils should have experience in using not only the printed map, but also outline maps on which they will record facts or conditions.

2. Material and Expression Work

Equipment: The collection distributed by the Commercial Museum in Philadelphia is very useful. Pupils or teachers can fill in necessary information on paper outline maps which can be purchased from various commercial companies, or which can be sketched by members of the class on large sheets of yellow or white paper. If the maps are sketched, care must be taken to make them proportionate and indicate enough parallels of latitude and meridians of longitude to aid in locating the information to be shown on the maps. Maps of slated material are economical as well as valuable equipment in teaching geography. Copies of other modern textbooks and reference books, pictures, maga-

zines, carefully chosen advertising material, will be valuable aids for the pupils in developing the work in this year. The *Geography News Bulletin* is an inexpensive but vital part of the equipment for this as well as other classes where geography, history and current events are taught.

3. Outcomes

a. *Knowledge.* The people of the world as communities of workers and the contributions made by the various groups to other groups. Conditions found in the various producing and non-producing areas of the world. Principles dealing with climate and other geographic factors which explain the relationships between the physical factors in a given environment and the resulting life responses. Important transportation and communication routes and centers of population in each continent. Several sources from which geographic information can be obtained.

b. *Abilities and Skills.* To apply geographic principles which have been developed throughout the work in previous years in interpreting the contributions made by each country to world welfare and in the explanation of the locations of producing and non-producing areas; to realize the relationship between man and his geographic environments; to desire more knowledge about the lives of other people.

c. *Attitudes of Mind.* Full appreciation on the interdependence of the peoples of the world due in a large measure to the varying environments in which they live—world-mindedness.

IV. COURSE OF STUDY IN HISTORY OF THE UNITED STATES AND OF PENNSYLVANIA AND IN CIVICS

FIRST PART

A. POINT OF VIEW IN HISTORY

1. General Aim of History and Civics

The fundamental aims, principles, and methods enunciated in the civics course are, in the main, applied to the work in history for the corresponding grades. The aim of both is to train in citizenship; the one through the study of community cooperation and the practice of group activity; the other through a study of the growth of community consciousness and the development of cooperative democracy. In short, history is past civics—civics is present history.

Only in the matter of class activity does the history differ materially from the civics. In the latter, the way is open to varied individual and class projects for civic usefulness; in the former to serve as the background of modern civic activity that may result.

2. Value of History to the Child

Probably the chief contribution that history makes to the social consciousness of the young citizen is to excite the emotions, to arouse interest, to steady the judgment, to discover the likemindedness that holds mankind together. This contribution comes largely through an intelligent study of the forces that have made for progress through the development of social institutions.

The teacher must not be discouraged at the length of time it takes for the pupils to become historically-civically minded. During the early years of school life the child's interests are mainly in his immediate surroundings. He is thinking rather of the individual than of the group to which that individual belongs. His imagination is strong and vivid. Later he passes into a stage of idealization, of hero worship. But it is not before the seventh grade, the beginning of adolescence, that the child reaches the organization stage, "the gang spirit" stage, where he is ready for consecutive, cause-and-effect history. The attempt has been made in this course of study to suit the progression of history work to the psychic changes of the child. Class work for anniversary days is continued only through the first three years, and thereafter will merge into the general school celebrations or into the regular class work in history.

3. Historic Background

Indians, Eskimos, and our western cliff dwellers are taken up in the first two years, both because they appeal to the child of that age and because they lend themselves readily to constructive activities—"expression work"—of all kinds. In the third grade the children are taken back to the days of primitive man—tree dwellers, cave dwellers, sea dwellers, pastoral people. This should make a lasting impression on the young minds as to what human beings were like in early times, in a primitive environment, when they were just learning to lead the group life.

In the fourth grade the scene is shifted from that of a primitive people under primitive conditions to a civilized (pioneer) people also under primitive conditions. With the former, progress in the art of living and in learning to lead the group life is slow and painful; with the latter, progress is rapid and pleasureful. The contrast is full of meaning. In the fifth grade this marvelous progress in human achievement is traced down to the present day—of course, in story form.

The children are now ready to fill in the intervening space between primitive man and the pioneer. Accordingly, in the sixth grade a rapid survey of our European background is taken in story form. This serves a twofold purpose: to complete a first history cycle, and at the same time to form the first part of a second cycle—completed by the United States history of the junior high school.

Not before the seventh grade is reached should consecutive history be attempted. Not before that period has the child reached the cause-and-effect, organization stage, where he is ready to understand and enjoy formal chronological history. And even then care must be taken that the history studied shall be full of activity—full of human interest.

4. Preparation for Citizenship

Preparation for good citizenship must be the goal of schools supported by public taxation. We prove fitness for community life and service when we willingly and intelligently cooperate in order to solve the problems of our democracy. It is in laying the foundations for this intelligence and in building up this sense of individual and group responsibility that the social studies function in the program of studies.

The complex social and economic problems of our day cannot be settled in the classroom by our citizens. Yet we must remember that classroom life is a part of the real life of the pupil. Today's actions and ideals are the foundation for tomorrow's reaction. This belief has guided us in the selection and organization of the material presented in this outline for seventh grade history and has aided us in the formulation of the following aims:

a. To give the pupil a clear idea of the chief events in the history of the American nation and to train him to use this historical knowledge to interpret present day conditions.
b. To bring to the attention of the pupil those factors in the industrial and social development of the United States which have brought about existing social, economic, and political problems.
c. To give the pupil an intelligent appreciation of the place in the world which our national community has held from time to time.
d. To give the pupil an appreciation of the importance of leadership in community progress.

Regardless of what the specific aims may be, the underlying motive in the whole situation comes from the realization that historical in-

struction is directed toward the development of certain characteristics of good citizenship—civic intelligence, civic attitudes and ideals, and civic habits.

5. Method

The history recitation will assume a variety of forms. Today it may be a study lesson, and resemble a laboratory in which teacher and pupil cooperate in solving some definite problem; tomorrow perhaps it will be a textbook drill, review, or recitation lesson; while at another time we may find the teacher scientifically measuring the results of his efforts.

The teacher cannot guide unless she knows how to do what she wants the pupils to do. The students must be carefully guided in the acquisition of the skill necessary for attacking the problems to be solved, and the teacher should aid the pupil so far as time permits.

a. *Readers and Textbooks.* Not before the fifth grade is reached will textbooks begin to play any important part in the classroom work in history, though history readers are available for children in the second, third, and fourth grades. The teacher should ever bear in mind that, whatever the grade, the textbook is only a starting point and not a goal,—a foundation book for such assigned report or project work as the limited time will permit.

b. *Self-activity.* It should be borne in mind that learning takes place only in so far as the child is self active. A story told by the teacher to which the child does not listen or which makes little or no impression is time wasted both for him and for the teacher. Self-activity should be stimulated and expressed. In the fourth grade, for example, cities should be built on the sand table or otherwise made concrete; exhibits should be organized and episodes dramatized; pictures should be used and peoples and events made real through puppets. In short, every effort should be made to translate relevant facts and conditions into concrete expression. Stereographs illustrating historical materials are an essential in highly effective work. Slides and films should be used where feasible. For information as to such equipment and supplies address the Director of Visual Education, Department of Public Instruction.

c. *Correlation with English.* In all grades, but particularly in grades one to six inclusive, the work in civics should be closely correlated with the work in English. Thus interrelated, not only is there a saving of precious time for teacher and pupils alike, but an added value comes to each of these studies. The civics help to motivate the English work, while the latter in turn gives dignity and finish to the former.

It is a great misfortune that our school studies are usually taught as if they had little or no relation to each other, and so lose the unified educational value they would otherwise possess.

B. OUTLINE OF SUBJECT MATTER

First, Second, and Third Years

1. Anniversary Days

All of the anniversary days indicated below will no doubt be observed each year by the school as a whole. The following outlines are suggested for use in history classes.

Each of the days is introduced as early as the maturity of the children will permit. It is expected that the work outlined for each "Day" will extend over a number of class periods.

a. *First Year*

Bird Day—(Set by the Governor): Bird families; what we can do for the birds. (food, water, nests, protection)

Hallowe'en—(October 31): What it means; why we are all making jack-o'-lanterns.

Christmas—(December 25): Jesus' Birthday; Bible stories of Jesus' life and work.

St. Valentine's Day—(February 14): Story of St. Valentine; purpose of the day, to promote friendship; why we are all making valentines and putting them in the school valentine box.

b. *Second Year*

Penn Day—(March 4): Penn's boyhood; his young manhood; he founds Pennsylvania.

Arbor Day—(Set by the Governor): Use of trees; value of trees; care of trees.

Thanksgiving Day—(Set by the Governor): Story of the Pilgrims; the first Thanksgiving Day; why we still celebrate the Day.

May Day—(May 1): Playing outdoor games; going to woods for violets; watching for birds; for new leaves in trees; for blossoms on fruit trees; new life everywhere.

Memorial Day—(May 30): The parade; why soldiers and sailors march; what makes a good soldier or sailor (obedience, courage, loyalty)

c. *Third Year*

Roosevelt Day—(October 27): Roosevelt as a boy; as a young man on a western ranch; as a soldier; as a statesman; as Governor of New York State; as President; as an explorer in Africa and in South America; as an outstanding American.

Armistice Day—(November 11): What happened on that day; the American Legion; our Army and Navy; when wars will end; our State National Guard.

Lincoln's Birthday—(February 12): Lincoln's love of books and struggle for an education; his kindness, sympathy, and honesty; his success as a lawyer; his opposition to slavery; a man of the people; his tragic death.

Washington's Birthday—(February 22): His childhood home on a big farm; his love of outdoor sports; his training to obey, to speak the truth, to be brave and unselfish; his life as a surveyor, as an Indian fighter; Commander-in-chief of the American army during the Revolutionary War; first President of the United States; known as Father of His Country.

Flag Day—(June 14): The first flag (thirteen red and white stripes, thirteen white stars in a circle, in a blue field); change from six-pointed to five-pointed stars; Betsy Ross; new flag soon adopted by Congress; what the stars and stripes stand for; "The Star Spangled Banner"—its origin; other names for our flag: "Old Glory," "The Red, White and Blue," "The Stars and Stripes;" significance of colors: red—valor; white—purity; blue—truth; our Pledge of Allegiance; correct way to use the flag.

In discussing each topic of these early grades use should be made of stories, songs, games, pictures, and expression work. Expression work should be both pictorial and oral. The former will include blackboard work, paper cutting, and, wherever possible, the use of the sand table and the clay modeling. Care should of course be taken that these constructive activities of the children shall grow up out of their own live interests, as they are guided by the teacher.

2. Primitive People

a. *First Year*

(1) The Indian—The Indian home; the Indian father ("brave"); the Indian mother ("squaw"); the Indian boy and girl; the Indian baby ("papoose"); stories of Indian life and customs.

(2) The Eskimo—The country of the Eskimo; appearance; characteristics; home life; what we give to the Eskimo.

b. *Second Year*

(1) The Indian—Appearance; characteristics; home life; Hiawatha.

(2) The Cliff Dweller—Where found; habitation; description of homes, relics found in homes; occupations; characteristics; ancestors of the Pueblo Indian.

c. *Third Year*

(1) The Tree Dweller—Age of fear—appearance of country; characteristics; dress; home; food.

(2) The Cave Dweller—Age of combat—home, improvement over tree dwellers; dress; foods; tools; occupations.

(3) The Sea Dweller—Age of migration—why he left his inland home among the forests; life on sea coast; appearance; characteristics; home; food; occupations.

(4) Pastoral People—Age of wandering—Abraham; Joseph; Moses; David.

FOURTH YEAR

Note: The time is to be divided between history and civics as the teacher can best plan it. The fourth grade work should be taken in the odd years.

1. Stories of Early Discoverers and Explorers

Spanish—Columbus; Ponce de Leon; Balboa; Magellan.
Results of Spanish explorations.
French—Champlain; La Salle; Marquette and Joliet.
Results of French explorations.
Dutch—Hudson. Results of Dutch explorations.
English—The Cabots; Drake; Raleigh. Results of English explorations.

2. Stories of Early Colonizers

Virginia—Captain John Smith
Maryland—Lord Baltimore
The Carolinas
Georgia—Oglethorpe
Massachusetts—Brewster, Bradford, Standish, Winthrop
Rhode Island—Roger Williams, Anne Hutchinson
Connecticut—Thomas Hooker
New York—The Patroons, Peter Stuyvesant
Pennsylvania—William Penn
New Jersey } ——William Penn
Delaware }

3. Stories of the French and Indian War

Causes of the War
Leading Characters: Washington; Wolfe; Montcalm
Results of the War

FIFTH YEAR

Note: In the B class the fifth grade work is to be given in the even years and the sixth grade work in the odd years. In planning

the work the time should be divided between history and civics as needed.

1. **Stories of the American Revolution**

   Events leading to war
   The war on land
   The war on sea
   War-time leaders in civil life: Robert Morris; Thomas Jefferson; Benjamin Franklin.

2. **Stories of the New Republic**

   Need for a stronger bond of union
   Making a new Constitution
   Washington—Hamilton—Jefferson
   Madison and the War of 1812

3. **Stories of the Middle Period (War of 1812 to Civil War)**

   Andrew Jackson, the frontiersman—President.
   Industrial leaders: Whitney; Howe; McCormick; Fulton; Morse; Field
   The country grows toward the west: Clinton; Houston, Fremont; Whitman
   Slavery and Union: Calhoun; Garrison; Harriet Beecher Stowe; Clay; Webster; Lincoln; Douglas

4. **Stories of the Civil War**

   The North and South—Davis; Lincoln; Grant; Lee; Farragut; Sherman
   Reconstruction—Negroes made free—made citizens—made voters

5. **Stories of New America**

   Cleveland; McKinley; Roosevelt; Wilson; Bell; Edison; Mark Twain; Frances Willard
   Great industries: Commerce; manufacturing; agriculture; mining; stock raising; lumbering; fishing

6. **Stories of Pennsylvania**

   Indians; Place of historical interest
   Noted men and women: Franklin; West; Wayne; Bartram; Rittenhouse; Fulton; Thaddeus Stevens; Andrew Curtin; Carnegie.

SIXTH YEAR

1. Our Old World Background

The Nile Valley; Tigris-Euphrates Valley; the Phoenicians; the Hebrews; the Greeks; the Romans; the Teutons; the Old World and the New; the Crusades; Discovery of the western world; European rivalries and colonization; Permanent settlements in America

SEVENTH YEAR

Note: In the A class seventh grade history will be given in the even calendar years and eighth grade civics in the odd calendar years.

1. The Colonies before the Revolutionary War

Social and economic conditions on the eve of the Revolution
Factors hindering colonial unity
Factors promoting colonial unity
Growth of democratic ideals
Grievances of the colonists
Development of the idea of independence
Declaration of Independence

2. The War for Independence

Difficulties confronting the colonists
Circumstances in favor of the colonists
Steps in the conflict
Financing the war
Results of the war

3. Establishing a Nation

A critical period
The Constitution
Organization of the new government

4. Federalist Supremacy

Domestic problems
Foreign relations

5. Republican Control

Election of 1800
Aggressive diplomacy
War of 1812

6. **Internal affairs during the "Middle Period"**

New industrial conditions
Settlement of the West
Economic background of political problems
Progress in democracy

7. **Foreign relations during the "Middle Period"**

European and American affairs
American neighbors and American affairs

8. **The Problem of Expansion**

California; transportation; political control

9. **Division within the United States**

The new territories and the slavery problem
Progress in the North and in the South
Sectional differences acute
The secession movement
The Civil War
Reconstruction—rebuilding the Nation

10. **The National Community Today as Compared with the National Community of the Civil War Era**

Territory; population; wealth; democracy in government; international relations; standard of living; education; literary and artistic position; religious and moral progress.

11. **How our Country has Reached its Present Position as a World Power**

a. Territory: Alaska; Hawaii; Samoa; the Philippines; Porto Rico; Panama Canal Zone; the Virgin Islands; Cuba (Protectorate)
b. Population: Immigration before 1885; immigration since 1885; race problems; shifting of population within the United States.
c. Wealth: Natural resources; transportation (land, water, air); communication (telephone, telegraph, cable, wireless); postal service; manufacturing, business organization.
d. Labor and capital: Growth and influence of organized labor and of organized capital; labor struggles; government and business; business relation of the United States and foreign countries; development of Pennsylvania's industries.

e. Political democracy: Equal suffrage; civil service; Australian ballot; short ballot; social legislation.

12. The United States as a World Power

Our relations with Canada; Mexico; South America; the Far East; Europe
Applications of the Monroe Doctrine
The Pan-American Union
The United States and the World War
American assistance in the development of foreign resources

13. Standard of Living

American homes—cities—country life
Inventions and the American standard of living
Immigration and the American standard of living

14. Education

Growth of schools and colleges
Development of popular education
Growth of higher education
National assistance to education

15. Literary and Artistic Development

Growth of newspapers and magazines
Growth of professional literature
Growth of artistic taste; home decoration; industrial art; civic art; musical development.

16. Religious and Moral Progress

Growth of American churches—of civic consciousness—of civic organizations—of group cooperation
Improved business relations
Changed attitude toward social delinquents
Use of American fortunes for service to the Nation
A developing international conscience.

SECOND PART

A. POINT OF VIEW IN CIVICS

Instead of regarding the civics course as an addition to the curriculum, let us think of it rather as a suggestive outline for the development of the spirit of right citizenship, so necessary in the civic training of the boys and girls.

This civic education is not concerned primarily with subject matter; it is rather a matter of habit, an attitude of mind, and a personal responsibility for right conduct. Training in citizenship, therefore, should impel the child to render concrete and constructive service to his immediate community, to his state, and to his country, He who gives this service gains patriotism and when the service is shared with his fellows he learns the meaning of democracy.

The aims, principles and methods of a course in citizenship must, therefore, create in the child a desire for such cooperative service.

1. Aims

The aim of civic education is at least threefold—

It must cultivate right civic habits.
It must create high civic ideals.
It must develop, by means of service, a finer patriotism and a larger democracy.

2. Principles

a. All these aims must be constantly present in the mind of the teacher, and the material and method must be adopted to them.

b. The school has a large responsibility for starting the young citizen right in his civic growth. The young citizen is developing an habitual attitude of mind toward his civic relations all the time, and should have guidance during the formative years of school life. This guidance should help to interpret the child's present experience and to cultivate his power of judgment, and should lead him to act in accordance with democratic ideals.

c. In the effort to increase children's intelligence in civic matters the teacher is sometimes tempted to begin by giving information which has been carefully prepared for their understanding, but which does not touch their interest because it does not correspond to the psychological stage of the children, is not within their experience, and is not raised to the life of the community. Along with the attention paid to civic matters in general, therefore, more attention must be given to the child's mental development and to his experience in his own local community.

d. It must be kept in mind that the child, in process of growth, passes through successive psychological stages, approximately as follows: that of the imagination in grades 1-3; of idealization (hero-worship) in grades 4-6; of unification (cause and effect) in grades 7-9. And unless our educational appeal is so directed as to meet these stages of child development our time will be largely wasted.

e. To create high civic ideals, rules are useless. We should teach those ideas present in the child's experience and associated with his life in the community. The successful cultivation of motives and of ideals depends on the enthusiastic teacher who is able to stand with the children on the plane of their common experience.

f. The civics course might be called a "Course in Human Relationships." People, not institutions or things, should be the center of thought. The course must emphasize the dependence and interdependence of people.

g. Civic traits and habits must be formed in these early years. Through constant practice children must know what is right, they must desire to do it, and they must "learn to do by doing." Therefore, civic virtues—that is, training in morals and manners acquired through habit formation—form the basis of work in grades 1, 2, and 3. In the later grades the work must be continued, expanded, and adapted to the greater civic responsibility of the child.

h. In each grade emphasis is to be laid on team work, cooperation and fair play. From the beginning of the school life children must work and play as members of a group, and they must be led to regard the rights and welfare of others.

i. The instruction is to be based on the child's experience and not on the logical organization of a body of knowledge. The aim should be rather to develop a point of view than to teach unrelated facts.

j. The instruction must be cumulative. To be effective, civic education must begin when the child enters the school and must continue throughout his school life.

k. Civic teaching should not be confined merely to one phase of instruction, but should be a controlling aim of all instruction. The enthusiastic teacher finds opportunity to develop right civic spirit in every subject and in every activity of the school.

l. The children have a natural, live, personal interest in what they are doing. Through this interest character may be cultivated and the power of initiative developed. Thus the child becomes an active, influential member of his group. He forms social ideals which should be both incentive and guide to his action in civic matters.

3. Methods

In the first, second, and third grades instruction should be by means of games, memory gems, poems, conversations, songs, pictures, stories, dramatizations. In the fourth, fifth, and sixth grades

the method may be varied by reports made by children on topics assigned for their investigation, by discussion, by visits to places of civic interest, by collections of pictures and charts, and by stories and conversations. In the seventh and eighth grades, class investigations and reports must develop a sense of class responsibility that shall incite the young citizens to group action, that shall train them in class activity for the common welfare.

a. *Readers and Textbooks.* Not before the fourth grade is reached will textbooks begin to play a part in the school room work in civics, though civics readers are available for children in the second and third grades. The transition from reader to textbook should be made so easy as scarcely to be perceptible to the pupil. And the teacher should ever bear in mind that, whatever the grade the textbook is only a starting point and not a goal—a foundation book for such assigned report or project work as the limited time will permit.

b. *Correlation with English.* In all the grades, but particularly in grades one to six inclusive, the work in history should be closely correlated with the work in English. Thus interrelated, not only is there a saving of precious time for teacher and pupils alike, but an added value comes to each of these studies. The history helps to motivate the English work, while the latter in turn gives dignity and finish to the former.

It is a great misfortune that our school studies are usually taught as if they had little or no relation to each other, and so lose the unified educational value they would otherwise possess.

4. Source Material

In addition to the special references for each topic given below, the teacher will find the following books applicable throughout:

Cabot, E. L., and others—A Course in Citizenship—Houghton
Dunn & Harris—Citizenship in School and Out—Heath
Fryer, Jane Eyre—Young American Readers—Winston
Hill, Mabel—Lessons for Junior Citizens—Houghton
McVenn, G. E.—Good Manners and Right Conduct—Heath

5. Teaching the Civic Virtues

The following outline will furnish story material for the teacher:

Home Life

Big Red Apple. In Bailey & Lewis' *For the Children's Hour*, p. 58
Birthday Present. In Lindsay's *Mother Stories*
Do What You Can. In Poulsson's *In the Child's World*, p. 235

Golden Windows. In Richard's *Golden Windows,* pp. 1-6
How the Home Was Built. In Lindsay's *Mother Stories,* p. 45

Obedience

Blackie and Mr. Bullfrog. In Bingham's *Merry Animal Tales,* p. 38
Blackie in the Trap. In Bingham's *Merry Animal Tales,* p. 53
Casabianca. In Baldwin's *Fifty Famous Stories Retold,* p. 153
Tale of Peter Rabbit. Potter, Beatrix.

Courtesy

How Patty Gave Thanks. In Poulsson's *In the Child's World,* p. 94
Sour and Civil. In Browne's *Wonderful Chair,* p. 132.

Helpfulness

Elves and the Shoemaker. In Bailey & Lewis' *For the Childen's Hour,* p. 233
The Dove and the Ant. In Poulsson's *In the Child's World* p. 80

Cleanliness

Pig Brother. In Bryant's *How to Tell stories to Children,* p. 141
Carl and the Earthworms. In Wiltse's *Stories for Kindergartens and Primary Schools,* p. 27
Tom, the Water Baby. In Bailey & Lewis' *For the Children's Hour,* p. 163

Orderliness

Fairy Who Came to Our House. In Bailey's *For the Children's Hour,* p. 29
Little Servants. In Poulsson's *In the Child's World,* p. 108
Story of a Mouse. In Wiltse's *Stories for Kindergartens and Primary Schools,* p. 33
Ten Fairies. In Bryant's *Stories to Tell to Children*

Kindness to Animals

Molly's Lamb. In Poulsson's *In the Child's World,* p. 416
Mrs. Tabby Gray. In Lindsay's *Mother Stories,* p. 9
Jack and Jenny Sparrow. In Poulsson's *In the Child's World,* p. 285

Fair Play

Bell of Atri. In Baldwin's *Fifty Famous Stories Retold*

Promptness

What Broke the China Pitcher. In Bailey & Lewis' *For the Children's Hour,* p. 129

Truthfulness

Boy Who Cried Wolf. Aesop.
Coming of the King. In Bailey's *For the Children's Hour* p. 284
Image and the Treasure. In Scudder's *Book of Legends,* p. 43
Stolen Corn. In Bailey & Lewis' *For the Children's Hour,* p. 68

Thoroughness

Dust Under the Rug. In Lindsay's *Mother Stories,* p. 155
Horse Shoe Nails. In Baldwin's *Fifty Famous People*

Honesty

Honest Woodman. In Poulsson's *In the Child's World,* p. 22
Pied Piper of Hamlin.

Respect

Sir Walter Raleigh. In Baldwin's *Fifty Stories Retold,* p. 54
Sons of the Caliph. In Baldwin's *Fifty Famous People.*

Courage

Grace Darling. In Baldwin's *Fifty Famous Stories Retold,* p. 61
Hare and the Storm. Aesop
Little Hero of Haarlem. In Bryant's *How to Tell Stories to Children,* p. 239
William Tell. In Baldwin's *Fifty Famous Stories Retold*
Stag and the Fawn. Aesop

Self-Control

King and His Hawk. In Baldwin's *Fifty Famous Stories Retold,* p. 113
Knights of the Silver Shield. In Alden's *Why the Chimes Rang.*

Perseverance

Bruce and the Spider. In Baldwin's *Fifty Famous Stories Retold,* p. 33
Crow and the Pitcher. In Wiltse's *Kindergarten Stories and Morning Talks,* p. 197
Hare and the Tortoise. In Wiltse's *Kindergarten Stories and Morning Talks,* p. 71.

Self-Reliance

Apron-String. In Richards' *Golden Windows,* p. 55
Good Advice. In Richards' *Golden Windows,* p. 63
Hercules and the Wagoner. In Wiltse's *Kindergarten Stories and Morning Talks,* p. 196
The Lark and the Farmer. In Baldwin's *Fairy Stories and Fables,* p. 165.

B. OUTLINE BY YEARS

FIRST YEAR

Note: The work here as in history is to be regarded as English work and done in English time. Take up such history and civics as can be done to the best advantage.

1. Home Life

Simplest form of community. A tea party; what mothers do; when we have company at our house; games we play at home; a toy store; a grocery store; telling stories we know.

2. School Life

The schoolroom another home. Discussion with children of school happenings in their daily lives, and the activities which foster team work.

3. Civic Virtues

Obedience; courtesy; helpfulness; cleanliness; orderliness; patriotism; kindness to animals; safety first.

a. *Obedience.* To parents and others in the home; to the teacher; to the bell; to danger signals.

b. *Courtesy.* Forms of greetings; courtesy to older people; to playmates; to visitors; to people who call at the home; at meals.

c. *Helpfulness.* In the school building; on the playground; in line formation.

d. *Cleanliness.* Of the person; of the personal belongings; of the immediate surroundings.

e. *Orderliness.* In use of pencils, papers, crayons, and other materials; in care of desk, of cloakroom; of playthings at home and on school playground.

f. *Patriotism.* The Flag: its colors; the salute; what it stands for; singing of patriotic songs.

g. *Kindness to Animals.* Our pets; what animals do for us; protecting birds and their nests; protecting cats and dogs from ill treatment; putting out drinking water for birds and other animals.

SECOND YEAR

1. Protection and Care the Home Gives

Love for parents and how to express it in helpfulness; good times at home; how we help each other at home; what we do on stormy days.

2. Protection and Care the School Gives

Why we like to come to school; sharing class property with children of another class; entertaining another class in the assembly.

3. Civic Virtues

Fair play; promptness; truthfulness; care of property; safety first.

a. *Fair Play.* Between each child and other children; between teacher and child; between child and pets.

b. *Promptness.* In forming lines; in removing wraps quickly; in passing or collecting materials.

c. *Truthfulness.* With teacher; with playmates; with parents. (*Warning to teacher.* Be careful to distinguish between untruthfulness and romancing—harmless exaggeration.)

d. *Care of Property.* Personal belongings; other children's belongings; school property.

e. *Safety First.* On street and road; in school yard.

THIRD YEAR

Note: In the C class divide the time between history and civics as needed. Third grade work will be given in even years and fourth grade work in odd years.

1. Servants of the Neighborhood Who Furnish Us with the Necessities of Life

Food—farmer, grocer, butcher, baker; clothing—merchant, dressmaker, shoemaker; shelter—carpenter, painter, plumber; health care—dentist, doctor, nurse, druggist.

2. Civic Virtues

Thoroughness; honesty; respect (for others and for worthy service and occupations); patriotism—the flag; safety first.

a. *Thoroughness.* In school work; at home; in service to others.

b. *Honesty.* Regarding property of others; in work; in play.

c. *Respect.* For parents and older people; for the blind, the lame; for teacher and others in authority; for other children; for worthy service and occupations.

d. *Patriotism.* Commence to think about people of other lands; to hear about foreign children and ways different from our own; to learn about foreign flags as our own; to find out where our flag goes on our ships, and what our flag means.

FOURTH YEAR

1. Servants of the Neighborhood

Postman; lamplighter; road mender; wireman; conductor; motorman; forester; game warden; constable; justice of the peace.

2. Civic Virtues

Courage—Physical, normal, self-control; thrift; perseverance; sense of personal responsibility; Americanism; safety first.

a. *Courage.* Physical; moral self-control—at home; in school; at play.

b. *Thrift.* Care in use of school materials; care in spending of money, to get the *good* article *rather* than the cheap one; to save money; to save time; to save food.

c. *Perseverance.* In doing the right thing, at work or at play; distinguish between persevering and simply trying.

d. *Responsibility.* For rights of others; for condition of school materials and school building; for proper use of public property.

e. *Patriotism.* What it means; what it requires; how to display the flag; the Red Cross and what it stands for.

f. *Self-Control.* At home, at school, at work; at play—when sorely tempted.

FIFTH YEAR

1. Our Neighborhood

School; library; post-office; churches; roads and streets; water supply; electricity; telephone; automobile; trolley; police protection; fire protection.

2. Civic Virtues

Helpful initiative; self-reliance; the flag—our own flag, the flag of other nations; safety first.

a. *Helpful Initiative.* In directing one's own work and play; when to lead and when to follow; interest in schoolroom activities; resourcefulness in carrying out worth-while suggestions.

b. *Self-Reliance.* At home, in schools; confidence, as in swimming or other sport; in working out school problems.

c. *Patriotism.* How to live for one's country; good citizenship; America needs educated citizens.

SIXTH YEAR

Note: Divide the time in the B class between history and civics. Give fifth grade work in even calendar years and sixth grade work in odd calendar years.

1. Organization for Service

The central thought for grade six is the kind of organized service that may be rendered through vocations, and the need for such service.

2. Doing the World's Work

Various activities—agricultural, industrial, commercial, professional—can be studied as an introduction to this phase of community life. Boys and girls must come to realize that the world's work can be done perfectly only by organized cooperation, in which they are to take part.

3. Eliminate Friction

No business enterprise can be operated without involving the interests of employer, employe, and the general public. Each owes certain obligations to the others, in order to insure the service necessary for the public welfare.

4. Playing the Game

Conflicting interests will become apparent, and the need for some power that can intervene and harmonize will be equally plain. Obedience to law becomes necessary in order to guarantee the rights of all. All must be good sports and play the game according to the rules. Teamwork is as necessary in work as in play.

5. Individual Responsibility

Citizenship is not something to come; it began with birth and is a life possession. Consequently, each young citizen is, in a measure, responsible for the welfare of his community. Good citizenship, moreover, must be active, not passive; and this requires thorough education and continuous training.

6. Suggestions as to Method

A brief study should be made of the service rendered in the community by individuals such as the farmer, the grocer, the druggist, the doctor: Where they get materials needed in their work; how the

work of each is helped by the work of others; how the practice of the civic virtues helps in promoting coöperation.

The communities of the state fall naturally into four groups; agricultural, manufacturing, mining, residential. Pupils in the rural schools will be mainly concerned with the agricultural.

7. Type Study—Agricultural Activities

a. *Securing Information.* This study should begin as before with a discussion of the service rendered by individuals, as doctor, nurse, etc. Are these individuals resident or non-resident? Then will follow a study of what the people of the homes represented in the class do for a living. Evidently in a rural community agricultural activities will stand out most prominently. What are these activities? Children can bring information from parents or a committee can be delegated to visit some large, successful farmer in the neighborhood to secure the information, and to report. Such committee should be definitely posted with questions to be asked.

b. *What the Farmers Produce that People Need.* Food products: grain; cattle; dairy products; clothing; wool; other products.

c. *Service Rendered by the Farmer to Other Communities.* Local markets; nearby towns and cities; distant markets; methods of shipment; the steps necessary to preserve the food for distant shipping; routes of travel and location of markets; dependence of towns and cities upon the farmers; farm help from towns and cities; value and importance of coöperation.

d. *Service Rendered by Other Communities to the Farmers.* Food and clothing—productions of other farms or other climates, as well as manufactured articles of food; farm implements; building and fertilizing materials; communities that furnish and that manufacture these needed materials; dependence of farmers upon towns and cities; country boys and girls working in towns and cities; value and importance of coöperation.

e. *Conditions Under Which Men Work.* Advantages of farm life and labor. The teacher should list the advantages of country life and work over city life and work. Unfavorable conditions in farm life; how they can be made better. Disadvantages of city work for country boys and girls. Why boys and girls should work on the farm, coöperative service. How to make rural life attractive.

f. *The Triangle of Relationships.* Here also the children should be led to see how the constant application of the civic virtues is necessary to happy harmonious group-action; and how differences and difficulties arise because some of these have not been practiced.

The farmer and his help—reasonable hours and pay; safeguarding health; good homes.

The farmer and the public—importance of maximum production; quality of product.

The help and the farmer—importance of faithful service; difficulties of farming conditions, such as weather, and need of reasonableness on the part of help; care of farm property.

The help and the public—need of maximum production, and conservation of food.

The public and the farmer—need of good roads, good laws, good schools, reasonable prices for products, and other good conditions that will encourage young people to stay on the farm.

The public and the help—need of conditions that will promote the welfare and happiness of workers in the country; good schools, churches, roads, transportation facilities.

This triangle might also take the form of the interrelations of urban and rural communities and the general public.

g. *The Functions of Public Officials.* Why they are necessary—fair play in the game; how they are chosen—emphasis should be laid upon the fact that they are representatives chosen by some of the people for all of the people, including the children. This should be very simple and elementary in character. Election day will probably be enough to impress this fact.

h. *Cooperating with Public Officials.* The fundamental purpose should be to lead the children to understand that public officials are servants of the people, chosen by them for very specific purposes; that these public officials can properly do their work only when the people coöperate; and that the children are an integral part of the people, although the privilege of helping to choose public officials is withheld from them until they are older.

i. *How People by Organizing Secure Better Coöperation.* Here again may come a summary of the coöperative activity noted above.

EIGHTH YEAR

Note: In the A class eighth grade civics will be given in the odd calendar years.

1. The Community Idea

a. Our relation with other people.
b. The first community we know—the home.

c. Other communities closely related to us—school, church, neighborhood, industry, the State.

d. How communities grow.

e. Political communities—township, borough, city, county, state, nation.

f. The citizen and his government—What is a citizen? What is an alien? Ways by which a person becomes a citizen. How a foreigner is naturalized. Imparting American ideals. The place of the citizen in his community.

2. **Elements of Welfare**

a. *Health*

(1) *Why important.* Factors in good health: pure air, pure water; pure food; freedom from contagious disease.

(2) *How the Young Citizen may Coöperate.* Fly and mosquito campaigns. Class reports on the following: water supply, milk supply; screening of food in nearby grocery stores; health precautions in nearby creamery.

(3) *Organizations.* Junior Civic League; Boy Scouts; Girl Scouts; Camp Fire Girls; Athletic Club; First Aid Club; Health Crusaders; Junior Red Cross.

b. *Protection of life and property*

(1) Importance of security.

(2) Dangers which threaten life and property—accident; fire; fraud and dishonesty; violence, tree and plant blight; insects; vermin; wild animals; floods.

(3) *How the young citizen may coöperate.* Preventing defacement and destruction of property; war against tree pests; tent caterpillar campaigns; making of health and safety first posters by art classes; observations of violations of laws; use of fire-hazard home inspection blanks, prepared by State Bureau of Fire Prevention; investigation of dishonest methods of weights and measures and of how these are discovered and prevented.

(4) *Organizations.* Safety first clubs; bird clubs; junior civic leagues.

c. *Education*

(1) Public schools.

(2) Private institutions of learning.

(3) Other educational agencies.

(4) Survey of public educational agencies—local, state, national.

(5) *How the young citizen may coöperate.* Newspaper clippings; student committees: to prepare opening exercises; to plan entertainments and special programs; investigations and reports on vocational opportunities in vicinity; school exhibitions planned and given by pupils.

(6) *Organizations.* Library club; musical clubs; local history club.

d. *Recreation.*

(1) What it is—who needs it—social value.

(2) *Public agencies.* Playgrounds and their use; parks and their value—national parks; libraries, museums; services of the schools.

(3) *Private agencies.* Means of travel; the "movies"; theatres, concerts, lectures; scout organizations.

(4) *The right of leisure.* What it means to "have a good time"; harmful amusements; what to do after school; the best kind of vacations.

(5) *How the young citizen may coöperate.* Community choruses; community Christmas tree; collection of pictures illustrating forms of recreation; making programs for socials; plans for field day; apparatus for playground.

(6) *Organization.* Baseball, basketball, tennis, swimming, walking; camera club; social club; musical club; nature study club.

e. *Community Planning.*

(1) How certain communities are laid out—Philadelphia, Washington; our own neighborhood.

(2) Essential systems—difficulties to overcome.

(3) Streets and highways—construction, cleaning, lighting, trees and parkways.

(4) Problems of location—electric railroads, bridges, steam railroads.

(5) Keeping the community attractive—beautifying the unsightly places; care of houses and lawns.

(6) *How the young citizen may coöperate.* Clean-up days; keeping of buildings and grounds clean; Arbor Day exercises—planting trees, shrubs or flowers around schools; preparation and care of window boxes; outlining of program for improvement of highways; turning vacant lots into flower gardens; planning school house and grounds.

(7) *Organizations.* Audubon Societies, Junior Civic Leagues.

f. *Communication and Transportation.* Conveniences our forefathers did not know; what modern facilities have done and are doing for us; convenience—utility—importance to the farmer and to the town dweller.

(1) Means of communication—postal service—on land and sea; telegraph and telephone; wireless; agencies for collecting and distributing news.

(2) Means of transportation—roads and turnpikes; sailboats and steamboats; railroads; street railways and interurban lines; automobiles; motor trucks; aeroplanes.

(3) Problems of control and administration—why control is necessary; franchises and their abuse; financing public utilities; public service commissions and their work; idea of government ownership.

(4) Responsibility for good service—public officials; executives and managers; employes; citizens.

(5) Movements of the people from one part of our country to another—incomers from abroad; purposes; effects; how received; whether further migration is desirable.

(6) *How the young citizen may coöperate.* Collections of cartoons and illustrations from daily papers and magazines; visits to and reports on work of: telephone exchange; post office; newspaper office; collections of pictures for filing on communication facilities; making of wireless outfit; collections of various blanks used in communications (cables, telegrams, money orders) arranged neatly on cardboards for exhibition; investigations of materials and methods of local road construction; plans illustrating good and poor roads; maps showing suggested improvements; collections of road materials; maps illustrating lighting systems for streets and highways; observation of violations of speed laws on the local highways.

g. *Wealth (Getting a Living)*

(1) Importance—definition; why we want it; public and private wealth.

(2) Obtaining wealth—sources: national resources, labor forms; leading forms of industrial activity; community organizations to encourage industry: granges, farm bureaus, dairymen's leagues, stock breeders' associations, agricultural societies.

(3) How the government encourages industrial activity. Experiment stations; distributing information; protection of travel; patents and copyrights; protection of workers; protection of property; regulation of corporations, limits of governmental power.

(4) The right use of wealth. Family budgets; means of investment; banks; trust companies. Conservation of natural resources: land; forests; water power; minerals.

(5) *How the young citizen may coöperate.* School banks: family budgets; collections of thrift bulletins; reports and investigations of local prices; comparing prices received by the farmers with prices paid in cities and towns where produce is finally consumed. Making maps indicating natural resources of community.

(6) *Organizations.* Thrift clubs; Christmas and vacation clubs; garden clubs; canning clubs; pig and poultry clubs; school garden armies; fruit clubs; potato clubs; corn clubs.

h. *Care of the Unfortunate*

(1) The poor—causes of poverty; unwise charity; private relief agencies; public relief agencies.

(2) The physically afflicted—blind; deaf and dumb; tubercular; epileptic.

(3) The mentally afflicted—difference between insane and feeble-minded; need of special care.

(4) *How the young citizen may coöperate.* Making toys, garments, and other articles for needy children. Entertainments, bazaars, etc., to provide means for relief of unfortunate children; school funds for children's hospitals; weekly flower days for a nearby hospital; helping the disabled on public highways.

(5) *Organizations.* Bands of Mercy; sewing clubs; Junior Red Cross.

i. *Right Living*

(1) Necessity of high moral standards.

(2) What the government can do to promote them, and what must be done by private agencies.

(3) The schools and right living—moral teaching in the school.

(4) Religious organizations—relations between the government and the churches.

(5) Other private agencies for moral betterment—Young Men's Christian Association; Young Women's Christian Association.

(6) Wrong-doers. Reasons why people do wrong; how the courts help to assure justice between people; how the courts deal with law breakers; treatment of convicts—old ideas; modern principles; helping criminals to reform; young criminals—reason for special treatment; methods employed.

(7) Special and constitutional standards. Constitutional safeguards for innocent people; whether there should be any difference in the treatment of people; our rights and limitations toward others; our rights and limitations toward the government.

(8) Survey of public agencies to promote right living. Courts—local—justices of peace; county judges; State—superior and supreme; national—district, circuit of appeals, supreme. Executive officials—local—police, constable, sheriff, district attorney; State constabulary, attorney-general, board of pardons, Governor. National—department of justice, President.

(9) *How the young citizen may coöperate.* Knowledge of the law that relates to good civic conduct; obedience to law.

3. How Society Cooperates Through Government

a. *Some American Ideals About Government*

(1) Majority rule—What it is and why we have it; methods of obtaining authority—war vs. the ballot; what majority rule implies as to minority conduct; abuses which must be guarded against—restriction of free speech, of a free press, etc.

(2) Representative government—Why necessary in modern countries; landmarks in the history of representative government, with special emphasis on England and the United States; relation of political parties to representative government.

Note: At this point, or earlier, classes may be organized to conduct business in parliamentary form, for example, as school villages.

(3) Federal system. Why we have it (review making of United States Constitution); powers of nation and powers of states; government of territories and possessions; making new states.

(4) Division of functions. The three departments: legislative, executive, judicial; check and balance idea; whether it can be carried too far.

(5) Constitutions. Importance in a democracy; contents of our national constitution; progress of amendment; state constitutions—Pennsylvania.

(6) Difference from other governments; English Cabinet system; advantages and disadvantages.

(7) Types of local government. Township, county, borough; powers and duties; relation to legislature; proposed reforms.

(8) Our relation to other countries. Ambassadors, ministers, and consuls. Arbitration—treaties; the Monroe Doctrine; The League of Nations.

b. *How Our Laws Are Made and Enforced*

(1) Importance of law making.

(2) Origin of laws. Custom—"unwritten laws"; public sentiment; desire of private citizens or organizations, recommendations of executives or legislators.

(3) National law making. Congress: House of Representatives; Senate; steps in passing a bill; the work of committees.

(4) Enforcing national laws. The President and his Cabinet—their powers and duties; special commissions.

(5) Limitations on the law making power. The courts and constitutionality; powers forbidden by the constitution.

(6) Law making in states. The General Assembly—composition, functions, comparison with national law making.

(7) Local law making. Borough councils; township officers with legislative powers; county commissioners; school boards.

(8) Administering local laws. Borough: chief burgess; borough council; county: commissioners; sheriff; district attorney; township: commissioners; supervisors; assessor; constable; tax collector.

(9) Direct legislation. Idea of New England town meeting; initiative and referendum; how far possible and desirable.

(10) Removing unworthy officials. Removing by appointing officer; impeachment; recall; civil service laws.

(11) Getting good government. Can there be too much law making; getting good men to serve; responsibility of the individual citizen.

c. *Elections and Political Parties*

(1) Meaning and importance of voting.

(2) Who may vote in Pennsylvania.

(3) How voting is done in this Commonwealth.

(4) Form of ballot in Pennsylvania.

(5) The Australian ballot system.

(6) Nominating candidates—petition; convention. Direct primaries: method advantages and disadvantages.

(7) Election—dates; officers chosen. The Presidential campaign.

(8) Political parties—why formed; how managed; conduct of campaigns; weakness; making parties useful.

(9) Proposed election reforms—short ballot; proportional representation; non-partisan elections.

(10) Responsibility for good government—interest of voters; parties as agents, not as masters; independent thinking; when elections are really representative.

d. *How the Government is Supported*

(1) Expenditures. Chief objects; distribution among national, state, and local governments.

(2) Taxes. Desirable qualities; principal forms; distribution among national, state and local governments; how levied and collected; special uses of taxing power.

(3) Other sources of revenue. Forms; distribution.

(4) Loans and debts. When borrowing money is desirable; methods of obtaining it; public debts.

(5) Public land and property. Parks, forest reserves; land for sale; reclamation service; public buildings.

(6) Proposed reforms in public finances. Budgets; scientific assessment; other improvements.

(7) Support through loyalty. Oaths of offices; treason; obedience to law; defense of law and order.

(8) Support through service. Jury service; military service; voting; study of public problems; participation in social activities.

(9) *How the young citizen may coöperate.* Making of labor-saving devices for home; plans for improvement of home to save steps and labor; making of playground apparatus; civic scrapbooks; making of books illustrative of life in different sections of our country; charts showing how county and state departments help in securing elements of welfare; exhibitions of work; poster committees; class forums on welfare questions, such as child labor, tenements, city improvements.

(10) Organizations. Home economics clubs; Knights of King Arthur; Junior Red Cross; Junior Civic Leagues.

V. COURSES OF STUDY IN PHYSICAL EDUCATION AND HEALTH INSTRUCTION

PHYSICAL EDUCATION

A. DEFINITION

Physical education is that phase of education which utilizes a program of physical and related mental, emotional and social activities as a means of promoting harmonious growth and development, the acquisition of specific motor abilities, and the development of social qualities which make for well adjusted living.

B. AIMS

1. **Abundant Vitality.** Circulatory, respiratory, nervous and all other vital systems must function properly to provide energy for growth and daily activity and to assure physical, mental and emotional stability. The activity of the large muscles of the shoulders, trunk and thighs serve this purpose.

2. **Social Efficiency.** Boys and girls from rural and small communities who play much alone or with children of widely differing ages have little successful experience in social adaption. They may learn to play harmoniously and to develop other serviceable social qualities through a rich play program.

3. **Motor Ability.** Grace, skill in using the limbs, skill in handling rapid-moving objects, and economy of energy are called upon in daily activity and should be devloped so as to serve the needs of all persons. Games, stunts, folk dances, and other physical education activities provide a wide range of nerve-muscle skills which serve this purpose.

4. **Favorable and Rational Attitudes toward Muscular Activities.** Muscular activity is essential to life and to all of the many ways in which life is expressed. All persons should engage in muscular

activity with success and a high degree of satisfaction. Materials and method in physical education should serve to develop favorable attitude toward the program of physical activity. The pupils should be given activities which will serve to provide mental and social qualities in present life as well as in later life.

C. THE PROGRAM

1. **Fall.** This season of the year provides many opportunities for out of door activity which should be used for vigorous directed play periods.

a. Primary Grades

(1) Singing, games and rhythms
(2) Games—circle, tag, individual
(3) Story and action plays
(4) Short hikes

b. Upper Grades

(1) Dodge ball
(2) Playground ball
(3) Volley ball
(4) Hiking (If pupils are transported)
(5) Horseshoe and quoit pitching (Noon time)

2. **Winter.** Although snow may cover the ground, there are times when the pupils properly clad, should be taken out of doors. It is recognized, however, that many of the physical education activities must be conducted in the classroom during this season.

a. Primary Grades

(1) Singing, games and rhythms
(2) Folk dances
(3) Classroom games
(4) Mimetics

b. Upper Grades

(1) Coasting
(2) Skating
(3) Snow games
(4) Mimetics
(5) Folk dances
(6) Classroom games
(7) Quiet social games (Noon hour)
(8) Marching (Elementary)
(9) Folk dances and rhythms

3. **Spring.** In some sections the short school session in the spring will limit the program of activities. The suggestions given under the section on winter activities will apply during this season. When weather conditions permit, activities should be conducted out of doors.

a. Primary Grades

(1) Story and action play
(2) Simple individualistic games
(3) Short hikes

b. Upper Grades

(1) Dodge ball
(2) Baseball
(3) Volley ball
(4) Track and field activities (Short runs and no jumping events for girls)
(5) Stunts
(6) Rope skipping

D. TIME ALLOTMENT AND DISTRIBUTION

The time allotted to physical education should be as follows:

150 minutes per week for recess periods
50 minutes per week for other physical education periods

It is recommended that this time be distributed as follows:

(Read Across)

Week	*Daily*	*Distribution*
150 minutes—recesses	30 minutes	15 minutes A. M. 15 minutes P. M. —one period daily used for directed play
50 minutes—other physical education periods	4 minutes for relief periods	2 minutes A. M. 2 minutes P. M.
	3—10 minute periods or 2—15 minute periods per week for instruction in physical education	

EXAMPLE OF PROGRAM

9:00	Opening of school
10:15—10:30	Recess—Directed play Tues., and Thurs.
11:15—11:17	Relief activities
12:00	Noon hour. Free play
1:00	Opening of school
2:20— 2:30	Instruction period for physical education—Mon., Wed., and Fri.
2:30— 2:45	Recess—Directed play Mon., Wed., and Fri.
3:30— 3:32	Relief period

In addition to the above definite schedule the periods before and after school and the latter part of the noon hour afford opportunities

for continuance of physical education activities, especially self-testing activities, plays, games and certain fundamental skills of athletics.

E. PURPOSE OF PERIODS

1. **The Instruction Period.** It is essential that physical education activities be carefully taught if the objectives of the program are to be accomplished. It will be necessary, therefore, for the teacher to give consideration to her own preparation just as she would for the organization and teaching of any phase of the curriculum. This will mean general plans for the program of the year, the month, the week, and specific and definite plans and preparations for the daily program.

The instruction period, which is scheduled either for three ten-minute periods or two fifteen-minute periods per week, will serve to provide opportunity for the greater portion of the teaching of physical education activities. It is desirable to have this period precede a recess period in order that there may be immediate opportunity for further practice in activities taught. In general this period will be used for the following:

a. The organization of pupils for specific activities for indoors or outdoors

b. The teaching of new activities for relief periods; minimum essentials in marching; words and music for a singing game; background and new steps for rhythms and folk dances; presentation, description and discussion of new games, self-testing activities, and athletics.

c. Correction and further teaching of activities which have previuosly been taught in part

d. Posture instruction and testing

e. Review and practice

f. Keeping records, scores, etc.

g. Training pupils in leadership

2. **The Relief Periods.** Relief periods of at least two minutes in length should be given frequently as the need arises. A minimum of two such periods should be given daily—one in the morning and one in the afternoon.

After the teacher has had an opportunity to become acquainted with her program and the pupils and has observed the times when fatigue in pupils is most evident, she will be able to determine the approximate time when the need for physical and mental relief will be greatest. The usual symptoms of fatigue are restlessness, wandering attention, inability to concentrate, lack of speed in work, slouching posture, etc.

To allow fatigue to accumulate slackens mental processes and decreases general efficiency. Relief activities should be given at the first signs of fatigue which are usually evident first in pupils of low energy.

It is advisable to schedule relief periods definitely in writing on the program to assist in reminding the teacher to give them. The teacher should feel free, however, to vary this time and place in the schedule when conditions of weather, ventilation, fatigue or other factors indicate the need.

a. Purposes of Relief Periods

(1) To provide opportunity for vigorous exercise of the large muscle groups in order to relieve fatigue and restlessness due to long periods of sitting or comparative inactivity.

(2) To provide for mental relaxation and release of enthusiasm through vigorous physical activities which demand little concentrated attention and which pupils enjoy. This change from emphasis on mental activity to physical activity tends to bring about mental relaxation.

(3) To prevent the accumulation of fatigue.

(4) To assist pupils to maintain their best condition physically and mentally so that they may more efficiently meet the demands of all school activities.

(5) To assist in overcoming the tendencies to poor posture which result from physical and mental fatigue.

(6) To increase and stimulate the functioning of the systems of the body through vigorous exercise of the large muscle groups.

b. Preparation for Relief Periods

The class should be instructed in what to do to prepare for relief activities so that no time will be lost and so that the organization and activities will not consume more than the time allotted. Such instruction should be given in the period for that purpose. This will include appointing monitors to open windows, assigning pupils to definite places, teaching new activities and discussion of the purposes of certain activities.

Preparation for relief periods will usually include the following when conducted indoors:

Monitors open windows at the same time.

Pupils remove coats, sweaters, scarfs.

Pupils move to places without loss of time. (This will depend on type of activity to be used).

Teacher or pupil lead activities.

Pupils return to seats, put on coats.

Monitors attend to ventilation.

3. **Periods for Directed Play.** A minimum of one recess period daily should be directed by the teacher. Occasionally it will be possible for the teacher to supervise the activities at other recess periods, before school and at the noon hour. Even a few minutes at such times will serve to get the activities started and everybody participating in something. Development and use of pupil leaders will greatly assist in keeping activities going.

The teacher has definite responsibilities in regard to utilizing the play periods for the education of the pupils. These periods should never be eliminated. During inclement weather the periods should be devoted to *play* indoors. Formal calisthenics with or without music should not be substituted for play activities. The reading of stories, while recreative, does not provide the vigorous physical activity which pupils need. Pupils should never be deprived of recess periods as a form of discipline as these periods are essential for the maintenance of the health of the pupils if for no other reason.

F. CONDUCT OF PHYSICAL EDUCATION ACTIVITIES

1. Preparation

a. Teacher

(1) Know in advance what is to be presented.

(2) Remove unnecessary wraps.

(3) Organize the groups, assign places, issue equipment, and appoint leaders before the group goes to the playground.

(4) Select activities which involve emphasis on the extension of joints, elevation of chest and a certain amount of expression of enthusiasm.

b. Pupils

(1) Clear desk of books, ink bottles, pencils, etc.

(2) Remove sweaters, coats and other wraps if activities are to be conducted in the classroom.

(3) Be alert to directions from the teacher or leader.

(4) Enter into the activities with vigor and enthusiasm.

c. Preparation of the Room

(1) Raise and lower windows according to temperature and velocity of air movement.

(2) Clear front of rooms near aisles if games are to be played.

(3) Remove any equipment which may be a safety hazard.

2. **Control Techniques**

a. Permit an amount of expression of enthusiasm within the limits of freedom but check unnecessary boisterousness with a glance indicating recognition of the excessive hilarity. Often indicating the need for less noise by raising the hand in a significant manner is effective.

b. An attitude of hilarity or excessive expression of the enthusiasm may be allayed in preparation for other phases of the school program by presenting slowly, rhythmically repeated movements such as slowly rising on the toes and raising the arms sideward.

c. The teacher should make the older pupils feel the responsibility for good behavior and for the observation of the rules of any activity in which they are engaged. If the teacher assumes the role of a policeman he will have much for which to admonish.

d. When out of door activity is to be conducted the groups should be organized and the activity assigned before the pupils are taken to the playground.

e. Call for suggestions for activities from the pupils frequently but do not allow them to choose at all times. They can choose only the activities on which they are informed. The teacher should schedule many different types of games, stunts, etc., so as to extend the range of their information and experience.

f. Stimulate the child who is inapt in motor activities, urge him to try to grade his activity to the level where successful experience may result. He may have an emotional conflict rather than an incapacity to perform motor skills.

g. The pupils who are apt in motor performances, who tend to dominate the game should be held in check and led to adopt more social and generous tactics.

h. A pupil should not be scorned, subjected to the sarcasm of a pupil or the teacher, or suffer in any way the loss of the feeling of self-worth because of disciplinarian measures which have been used.

i. A conference with an offending pupil is usually the most effective way of dealing with breaches in discipline. Assign school and class responsibilities and tasks to the pupils who are vigorous in their demands for action.

j. Seek the cooperation and efforts of the influential pupils, the leaders for ill or for good, and there will be few outbreaks even when an extreme degree of freedom is granted for expression of enthusiasm.

G. TEACHING MATERIAL

1. For Primary Grades

a. Singing Games and Rhythms

†*Did You Ever See a Lassie	Columbia record Victor record	10008D 17568
†*The Farmer in the Dell		
†*Looly Loo	Columbia record Victor record	10008D 20214
†*Mulberry Bush	Victor record	20806
*Shoemaker's Dance	Columbia record Victor record	A3038 20450
†*Hickory, Dickory, Dock	Columbia record Victor record	10006D 20621
*Chimes of Dunkirk	Columbia record	A3061
†*Danish Dance of Greeting	Columbia record Victor record	A3039 20432
†*Oats, Peas, Beans	Victor record	20214
†The Swing	Victor record	20744
*Carrousel	Columbia record Victor record	A3036 20432
†*Jolly is the Miller	Columbia record Victor record	A3078 20214
Old Dan Tucker	Victor record	20447
†Yankee Doodle	Victor record	20166

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* For full description and music, see Syllabus in Physical Education for Grades I—VIII.

† Contained in the following publication which has been checked carefully as to the pitch of the music. Dykema, Peter W., "Twice 55 Games with Music." Boston: C. C. Birchard and Company. 1924.

b. Games

(1) Cat and Mice

A cat hides behind the teacher's desk. A number of mice creep up to the desk and scratch on it. Immediately the cat gives chase to the mice, who run for safety to their holes (seats). Any mouse caught becomes cat for the next game.

(2) Crossing the Brook

Two lines are marked off one foot apart to represent the "brook." Each child runs and tries to jump across the "brook." If he can do this, he turns around and makes a standing jump back. Anyone who fails to make both jumps is out.

Wider places in the "brook" are marked for those who have been successful, and the one wins who makes the longest jump both ways. Children may be divided into groups according to size, and the width of brook varied. A two-by-four board, or balance beam, may be used as a "bridge," which the players must walk along without stepping into the water.

(3) Jack Be Nimble

Any object, about 6 or 8 inches high, placed on the floor may represent a candle. On signal the players, in single file, run and with feet together jump over the candle, repeating the rhyme:

"Jack be nimble, Jack be quick,
And Jack jump over the candlestick."

Players who knock down the candle must replace same.
Variations: 1. Several candles may be used in various positions. 2. Each row may run separately, while those seated repeat the rhyme.

(4) Huntsman

Choose a leader. This leader marches around in any direction he wishes and announces, "Who would like to go with me to hunt ducks?" (or bears, rabbits, foxes, etc.). All the players fall in line behind him and march as he does. When the leader sees that all are in line and away from their seats, he calls, "Bang," when all scamper for their own seats. The first one to be seated in his own seat may be leader next time.

(5) Run, Rabbit, Run

One group, rabbits, are safe in their homes. The other group, foxes, walk through the woods. The old mother rabbit takes her young ones out to play in the sunshine and look for food. They go softly because they fear old fox may see them. Suddenly the leader of the foxes cries out, "Run, Rabbit, Run!" at which all the rabbits try to reach their homes before the foxes catch them. All who are caught become foxes and on venturing out next time help catch the remaining rabbits.

(6) Squirrels in Trees

Two-thirds of the players stand in couples with hands on each other's shoulders, forming hollow trees. The trees are scattered about in no set formation, with considerable space between them. Place inside each tree one of the remaining players, representing a squirrel. There should be in addition, one (or more) odd squirrel who is without a tree. The teacher or leader claps her hands, or blows a whistle, when all of the squirrels must run for another tree and may not return to the tree they have just left. The odd squirrel tries to secure a tree. The one who is left without a tree becomes the odd squirrel. Those who represent trees should be given an opportunity to play the part of squirrels.

(7) Bird Catcher

Two corners are marked off at one end of the playground or the classroom; one serves as a nest and the other as a cage. A mother bird is chosen, and enters the nest. One or two other players taking the part of bird catchers stand midway between nest and cage. In the schoolroom the remaining players sit in their seats; on the playground they stand behind a line which is called the forest. All players should be named for birds. Each bird should be represented by several players. In the classroom each row may choose its name, after which the players should all change places, so that all of the robins or orioles will not fly from the same locality. The mother bird calls the name of a bird, whereupon all players who bear that name run from the forest to the nest, while bird catchers try to catch them. In the classroom the birds called should run to the rear of the room, and only then may the bird catchers start chasing them. Birds caught go to the cage. A bird is safe if it once reaches the nest. The players should run and dodge in different directions, instead of going in a simple, straight line for the nest.

(8) Ring Call Ball

Players form a circle, with one in the center. This player throws a ball in the air, at the same time calling the name of one of the circle players. The one called runs forward and tries to catch the ball before it bounces more than once. If he catches it, he returns to the circle. If he does not catch it, he changes places with the thrower. There should be a ball for each group of eight players.

(9) Ball Passing

Divide players into two teams, but in a single circle. A basketball is passed around from player to player. The teacher keeps introducing more balls until five or six, or even more, are rapidly passing around the circle. The balls may be of different sizes and weights; basket, medicine, tennis or playground baseballs. When a player drops a ball it scores against his team.

(10) Lame Fox and Chickens

One player, the fox, stands in a den marked off at one side of the play area. The rest are chickens and have a chicken yard at the opposite side of the play area. The chickens advance as near as they dare to the den of the fox and tease him by calling out "Lame fox! Lame fox! Can't catch anybody!" The lame fox may take only three steps beyond his den, after which he must hop on one foot, trying to tag the chickens while hopping. All tagged become foxes and go home with him, thereafter going with him to catch the chickens. The foxes must all observe the same rule of taking but three steps beyond the den, after which they must hop. A fox may change his hopping from one foot to the other. Should any fox put both feet down at once after his three steps while outside the den, the chickens may drive him back. Care should be taken that the hopping

is not always done on the same foot. The chicken last caught wins the game and becomes the first lame fox in the new game. Where there are more than twenty players, start the game with two or more foxes.

c. Story or Action Plays

(1) Hallow'een

(a) Jump over the fence into the field where the pumpkins grow—Jump over seat into next aisle.

(b) Bend over and hunt for big pumpkin for your jack-o'-lantern—Bend forward and downward.

(c) Stoop down and lift one up—Run home with it. Stoop, lift pumpkin and run in place.

(d) Make lantern—Sit down, cut off top, take out seeds, and light candle.

(e) Playing with lantern—Run to window. Hold lantern high up to the window. Hear some one coming, so stoop down quickly to hide. Creep along to the next window. Can hardly reach this window, so have to stretch up on toes.

(f) Run home—Softly on tiptoes.

(g) Blow out candle in lantern.

(2) Nutting

(a) Run to the woods, carrying over the shoulder a bag in which to put nuts.

(b) Climb over stone wall—Climb over seat or substitute.

(c) Walk through the carpet of leaves—Lift knees high.

(d) Jump over a little brook, for the trees are on the other side.

(e) Reach up and shake branches, standing on tiptoe.

(f) Throw things at the trees to make more nuts drop.

(g) Stoop and bend to pick up the nuts. Place nuts in bag.

(h) Lift the bags up, balance them on the head, and walk home with them.

(3) Snow Fort

(a) Walk through field of deep snow—With shovel held over one shoulder, bring knees up high.

(b) Groups shovel snow into big piles to make forts.

(c) Pat the snow down hard on top with shovel—This is done up high and around in a circle as if fort surrounds them.

(d) Snowball fight—One-half of group against other half. All make snowballs, then one-half throw them at others, while the latter dodge them or drop down within their fort.

(e) Repeat. The first side dodging and the second side throwing.

(f) Walk home on snowshoes through deep snow.

(4) Christmas Tree

(a) Put on coats and hats

(b) Run to barn for sled and hatchet—When secured, children run out to the woods.

(c) Chop down trees—With one foot forward, swing axe over other shoulder. Chop and stoop forward several times to one side and then to the other.

(d) Place tree on sled. Drag sled home. Hands behind as if holding ropes.

(e) Walk rapidly to secure boards, hammer, nails and saw. Make stand for tree.

(f) Decorate tree with presents, ornaments and candles.

(g) Dance around Christmas tree—Use a game previously learned.

(h) Blow out candles on tree.

(5) Washington's Cherry Tree

(a) Pull on sweater—Take several pulls to get sweater over head. Then push arms up into sleeves. Finally give two or three pulls to get it from shoulders down.

(b) Run out with hatchet—Two lines are drawn on the ground to represent a brook. As children come to the brook they jump over it.

(c) Chop down cherry tree.

(d) Hurry home—This time they come to a log fallen across the brook and have to walk over it very carefully. Draw a long line. Extending arms out at sides, walk the line without stepping off it.

(6) March Winds

(a) Tops of trees bowing to the wind—Bend forward and backward slowly. Sideward right and left slowly. Repeat.

(b) Trees bending trunks to the wind—Feet sideward. Place hands on hips. Bend body right and left slowly. Repeat.

(c) The windmill—Raise arms sideward shoulder high. Lower right, raise left. Reverse movement. Repeat.

(d) Weather vanes—Hands on shoulders, elbow shoulder height. Twist body right and left. Repeat.

(e) The dancing leaves—Light running steps in place, run around in place several times, hop on one foot, then on the other.

(f) Wind blowing limbs of trees to the ground—Bend and stretch knees.

(g) Skip home out of wind.

(7) At the Seashore

(a) Ride to seashore—Represent horses and drivers.

(b) At seashore—Skip to bath house. Put on bathing suits.

(c) Play in sand—Dig holes, throw stones, etc.

(d) Race with waves—Run to meet wave, turn and race it back.

(e) Jump over waves—Join hands along the beach. At given signal all jump into a big wave. Repeat several times.

(f) Swim around in the ocean—Make swimming motion with arms.

(g) Racing on sand—One child from each group might compete at the same time.

(h) Skip to bath house—Change clothes. Drive home.

(8) Gathering Flowers

(a) Start out to gather flowers—Skip vigorously.

(b) Climb over the gate and jump down on the other side—Climb over seat, jumping into next aisle.

(c) Stoop and pick a few flowers, putting them in the basket.

(d) See some prettier flowers. Run quickly and stoop to pick them.

(e) Jump over logs to pick some violets on the other side—Draw two lines to represent a log.

(f) Little brook. Many flowers on other side. Cross carefully on stepping stone—Walk chalk line.

(g) After the baskets are filled, climb over a stone wall and skip home.

(h) Sit down and arrange the flowers into bouquets.

(9) Automobiles

(a) Pump up the tires—Bend and stretch, working arms up and down. Make sound of "sh" as you pump.

(b) Crank the automobile—Join hands in front and make a big circle by swinging arms.

(c) Engine starts—Run in place, hands on hips. Increase speed gradually.

(d) Shower coming, put up the top—Reach down, arms extended, and pull up.

(e) Rain comes down—Raise arms high, fingers move to represent raindrops. Go to squat position.

(f) Wipe the rain from the car—Use up, down and side movements.

(g) Take a friend for a ride—One child puts hands on shoulders of the child in front and they move forward. Stop occasionally for traffic signals.

(10) A Day at the Playground

(a) Roller skate to playground—Do a skating movement sliding first on one foot, then on the other.

(b) On the teeters—Two pupils face each other. One pupil bends knees as other rises on toes. Continue action.

(c) Playing hop-scotch—Hop first on one foot around the circle and back on the other.

(d) Playing ball—Make a throwing movement. Jump up and reach as if to catch the ball. Repeat several times.

(e) On the swings—Place one foot forward and balance back and forth with a swinging movement. Hold hands up as if grasping a rope.

(f) Riding home on train—With knees bent place hands on shoulders of person in front. All start forward on same foot. Twist the shoulders as arms move with a backward and forward motion like the piston rods on wheels of a train. Make a chug-chug noise while moving.

(11) Coasting with New Christmas Sled

(a) Drag sled up steep hill.

(b) All push sled and jump on—Face seat and push it with both hands while running in place. At signal one hand is put on desk and one hand on back of seat, children jump so that they sit on seat with feet out in front of them facing side of room.

(c) Hold ropes taut with straight arms. Pull first one arm and then other, as if to steer around corner.

(d) Jump off—They jump off into next aisle. Turn, face seat and coast down hill again. Repeat.

(e) Toes cold, so jump in place.

d. Mimetics

(1) Rabbits—If music is used, slow 6/8 time. Stoop down and hop on all fours, or the hopping may be done on the feet with the thumbs held at the head, fingers extended upward, to imitate rabbits' ears.

(2) Ducks—Slow 4/4 time. Sit down on the heels, place the hands on the knees, waddle slowly forward.

(3) Horse Galloping—Fast 6/8 time. Right or left foot leads all the way.

(4) High-stepping horses—6/8 time. Bring knees up high in front.

(5) Birds—Fast 3/4 time. Run lightly on the toes, waving the arms up and down.

(6) Butterflies—Fast 3/4 time. Quick running, with slow, gentle movement of arms over head and down to the sides.

(7) Cats—Move quickly on all fours.

(8) Bears—Hands on floor, close to feet, knees straight, slowly lumber from side to side.

(9) Frogs—Hands on floor, arms between knees, jump forward, kicking legs to rear.

(10) Elephants—Hands clasped in front of body, bent forward and walk, swinging from side to side. Reach out and up with trunk.

(11) Scooping Sand—Stand with the feet apart, gather up sand with both hands and throw into sand pail.

(12) Dancing Around the Birthday Cake—Each two rows take hands in single circle. Sliding, step to right, once around one row of seats.

(13) Playing Giants—Heels raised, arms stretched upwards. Take three or four long steps forward. Turn and run to place. Repeat.

(14) Jumping Jacks—Jump to stride stand and at same time raise arms sideward, shoulders high. Jump to position. Repeat.

(15) Painting House—Climb ladder. Reach up high and paint, making strokes up and down, then left and right, with right hand. Same with left.

(16) Picking Apples. Reach arms upward, rise on toes and try to pick apples from lower branches of trees. Repeat.

(17) Picking up Potatoes—Bend knees (deep), pick up potatoes, then stand and place them in basket. Repeat several times.

(18) Feeding the Chickens—Hold basket of corn in left hand, use right hand to throw corn out to chickens—a long swing of the arm. Repeat, throwing corn with left hand. Alternate several times.

(19) Pigeons Flying—Each two rows run around one row of seats (run lightly on toes, waving arms up and down).

(20) Jumping over Logs—Bend knees, jump forward. Repeat.

(21) Walking Through Deep Snow—Each two rows around one row of seats. Lift knees high with each long step.

(22) The Robin Hopping Around—Place hands at arm-pits, for wings, bend knees and hop two or three steps forward.

e. Stunts (Third grade)

(1) Duck Walk

Deep knee bend, hands on knees, walk forward in this position. Place hands behind back, palms together, fingers pointing backward to make a duck tail. Walk in this position.

(2) Rabbit Hop

Deep knee bend, place hands on floor. Move hands forward and bring feet forward between the hands with a jump.

(3) Crab Walk

From squat position reach backward and put both hands flat on the floor without sitting down. With head, neck and body in one straight line, and back toward the floor, walk or run.

(4) Human Rocker

Lie face downward; grasp the ankles, and rock the body to and fro. A rigid curve of the chest and abdomen must be kept.

(5) Step Hop

Step weight on left foot; hop on the left foot as the right leg is swung forward and across to the left. Keep right knee almost straight. Repeat to right.

(6) Dog Run

With both hands on the floor, and with knees kept slightly bent, imitate the gallop of a dog.

(7) Gallop.

Do a "follow-step" keeping left foot in advance, left knee raised high, back straight. This is done by standing on the right foot with left knee raised high in front. Step forward on left foot and bring up the right to the heel of the left. Then raise left knee and repeat. After leading with the left foot for some time, lead with the right.

(8) Cart Wheel

From the position of attention on the mat, jump to a side-stride position (heels about one foot apart sideways), swing left arm through the sideward position to upward, right arm remains at right side. Swing left arm to sideward position, right arm to upward position, bend trunk to the left swinging right leg sideward and upward. Support the body weight on left arm as left foot swings from mat. Continue the circle sideways, feet spread and overhead, supporting the body weight on right arm; then on right leg; then on both feet to erect position.

(f) Ball Games (Third grade)

(1) Dodge Ball

Draw a circle. Players in a group are divided into two even teams. One team toes the circle. The other team is scattered about inside the circle. The circle men try to hit the center men with a ball, the center men dodging to escape being hit. They may jump, stoop, or resort to any means of dodging except leaving the ring. Any player hit by a fly ball on any part of his person, other than the head, at once joins the circle men. The last player in the center is individual winner. The teams then change places for the next game, the center men becoming circle players and the circle men going to the center. The team which eliminates all the center players in the shortest time wins the game. The center players do not at any time throw the ball, they merely dodge it. A circle player may leave his position to recover the ball. When recovered it should be thrown to a circle man and not carried back. When two center men are hit by one throw of the ball, only the first one hit leaves the center.

(2) Kick Ball

Number on team—Five to twelve.

Materials—Soccer ball or basketball, never a volley ball. Bases 12″ x 12″.

Field—Baseball diamond with bases thirty feet apart.

Pitcher's box—Fifteen to twenty feet from home plate. Box is 6″ x 3′.

Rules—Seven innings shall constitute a game. In match games the officials may shorten the innings to five, or lengthen to nine. In case of a tie, the game is continued until one side scores. The pitcher rolls the ball to the batter, who kicks the ball into the field. The general rules of baseball apply, with the following exception: The base runner shall be out if tagged out or "thrown out" before reaching first base, second base, third base, or home plate. A runner must be tagged *with* the ball held in the hand just as in baseball. "Thrown out" means that the base is tagged with the ball or touched by some part of body of baseman or fielder while the ball is in the hands, before the runner reaches the base.

2. For Upper Grades

a. Games

CLASSROOM GAMES

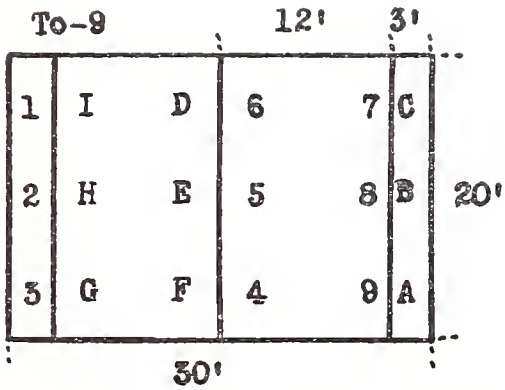
(1) End Ball

Equipment—Basketball, valley ball, indoor baseball, soccer football, stuffed outer casing, clean bag, knotted towel, or a sponge.

Playing Area—Twenty feet by thirty feet or an increased or reduced area when necessary to make an interesting game for available players. For all match games, teams shall agree on the size of the court and preliminary practice should be on the same sized court.

Number of Players—Three to twelve on a team. One-third of the members of a team are end men, the others are fielders.

Position of Teams and Suggested Rotation—1, 2, 3 and A, B, C are end men and opponents; 1, 2, 3, and the fielders, 4, 5, 6, 7, 8 and 9, belong to the same team.



Rotation of Players—Number the players of each team. Each time a team scores, that team only rotates, each player moving one place to a new position; an end man each time leaves the end area, goes into the field and becomes a fielder, while a fielder enters the end area and becomes an end man. During the rotation, the ball remains at the end where caught. It is put in play by one of the end men after the rotation of players has been completed.

Classroom Organization—If played in a classroom with stationary desks, the opposing end men are stationed at opposite sides of the room in the aisles, next to the walls. The remaining aisles determine the playing areas of the fielders. The rotation of players indoors is the same as when played on an outdoor court.

Time of Playing—Two halves of an agreed length of time, with a two-minute rest between halves. The referee may call for time whenever it seems wise. At the beginning of the second half, the teams shall change goals, players taking the corresponding positions to those held when time was called. This game gives excellent training in handling a ball. It is a valuable game as a preparation for captain ball and nine court basketball.

Object of the Game—The fielders on one side try to throw the ball to one of their end men. The opponents try to secure the ball and throw it to one of their end men.

Scoring—A score of one point is made if any end man with both feet inside of his zone catches the ball on a fly without its having first touched the wall or any other inanimate object. The team having the highest score at the end of the second half wins.

To Start the Game—Flip a coin or other object to determine which team shall put the ball in play. The ball is put in play by an end man trying to throw the ball to one of his fielders. The fielder immediately tries to return the ball to him or to one of the other of his end men, and so score.

Fouls—It shall be a foul for any player, fielder or end man to step over any end, side line or into the opponent's territory with one or both feet. A ball so caught shall not score. It shall be a foul to carry the ball. It must be thrown from the place where caught. It shall be a foul to hold the ball more than five seconds. It shall be a foul to push or hold an opponent. It shall be a foul to snatch or interfere with the ball when held by another player.

Penalty for Foul—If a player on either team makes a foul, the ball shall be thrown to the nearest fielder of the opponent team, and play shall continue immediately. In case of a double foul, the ball shall be put in play from the center between two opposing fielders who shall jump for the ball and attempt to tap it back to their teammates.

Out of Bounds—If the ball is thrown or rolls out of bounds on the side lines, the nearest fielder gets it and passes it to the

nearest fielder of the team who did not send it out of bounds. Play continues immediately. If the ball is thrown or knocked out of bounds at the ends, the nearest end man retrieves it, returns to his position and the play continues immediately.

(2) Farmer and the Crow Relay

The class is divided into teams. The first player on each team is the farmer, the second the crow, the third the farmer, the fourth the crow, etc. The farmer hops forward and plants seeds (bean bags or small, suitable objects) two feet apart along a straight line. He then returns and "touches off" the crow. The crow hops over each seed to the end of the line, turns around, changes to the other foot and hops back, picking up the seeds on his way. He then hands them to the next farmer, who imitates the first farmer's play. At the end of his turn each player goes to the end of his line. The team finishing first, with every one back in his original place, wins the race. If the game is repeated, the farmers and crows change places. For fairness, indicate by a mark the farthest point at which the last seed must be placed.

(3) Hopping Relay

Bean bags or cardboards are placed on the floor in two rows. They should be arranged so the bags are fifteen inches apart and the rows three feet apart. There should be ten bags in each row. The players are divided into four equal teams—A, B, C and D. Two players—one each of teams A and B—toe the starting line two feet from the first bean bags. At a signal they hop over their bags on the right foot to the other end of the row and immediately hop back on the other foot. The player first crossing the starting line scores five points for his team; one point is deducted each time the player steps on a bag or touches the floor with the other foot. The team wins whose players score the most points. The players of teams C and D hop in like manner and the winner plays the winner of A and B for the championship of the room.

Variations: 1. Jump with both feet. 2. Holding one foot. 3. Jump backwards (reduce the number of bean bags in each row).

(4) Hurly Burly Bean Bag Relay

(Note: The following may be played with all grades one to eight participating.)

Players seated, rows even in numbers, a bean bag on each front desk. At signal, each front player takes bag and tosses it up and back over his head. The player behind him must catch it, or pick it up, then clap his hands before passing the bag to the next player. The rear player on getting the bag, hops down the aisle on one foot to the front of the room, and there executes some movement previously agreed upon. While he is doing this, all the other players move back one seat. When he has finished the movement, the player from the rear takes the front seat and begins as at first. This continues until the player

who was in the front seat reaches it again, puts the bag on the desk as in the beginning, and holds both hands high over his head. The row whose leader does this first wins.

(5) Changing Seats

All the players are seated. The leader gives command, such as, "Change right!" "Change left!" "Change front!" "Change rear!" all players moving in the direction of the command. The players who are forced into the aisles, next to the side or rear walls or the front of the room, run to the vacant seats at the opposite side, front or rear of the room. Variations: Pupils skip or hop to seats.

(6) Numbers Change (Ten or more players)

The players stand in a large circle and are numbered consecutively. One player takes his place in the center. He calls two numbers, and the players whose numbers are called must change places while the center player tries to secure one of their places. The one who is left without a place becomes the center player.

This game may be adapted for the schoolroom by selecting two players as chasers, who take their places in the front of the room. All of the other players are seated, having been numbered. The teacher calls two numbers. The players having those numbers must rise at once and exchange seats, the two chasers trying to catch them before they can get to their seats.

Note: When a game is played under those circumstances it is not permissible for the chaser to take a vacant seat; he must catch the player who is running for it. No player, having once left his own seat may return to it; he must keep up the chase until he is caught or reaches the seat for which he is running.

(7) Beast, Bird, or Fish

One player chosen to be "It" stands before the other players and quickly pointing to any one player says, "Beast, Bird, or Fish!" then repeats one of these and immediately counts to ten. The player at whom he points must give the name of a beast, or a bird, or a fish, depending upon which "It" has specified, before the latter has finished counting to ten. Should the player succeed in doing this he becomes "It." Should he fail "It" points at some one else and the game is repeated.

(8) Red Light

All of the players but one form in line against the wall or with their feet on a goal. The odd player, chosen to be "It," stands in the middle of the playing space with his back to the rest of the players. With his hands over his eyes he counts out loud to ten, then says, "No talking, no laughing, no moving. Red light," and turns around. During the counting the rest of the players have progressed towards the opposite wall, or goal line as far as they can. At the signal, "Red light," they must all be absolutely still. If the "It" sees any player talking, laughing, or moving, he calls that player by name and chases

him until he catches him. If he does not see any one doing these forbidden things, he turns around and counts again. As soon as the first child reaches the opposite goal the game is started from the beginning with that child "It."

(9) "I say, Stoop!"

The players stand in a circle, and in front of them stands the leader or teacher. The leader says quickly, "I say, Stoop!" and immediately stoops and rises again. The players all imitate the action; but when the leader says, "I say, Stand!" at the same time stooping, the players should remain standing. Any who make a mistake and stoop when the leader says "I say, Stand!" are out of the game.

Note: This can be played on the playground as well as in the school room. It develops alertness, self-control, and concentration.

(10) Indian File Relay

The children are seated, the same number in each row, only every other row playing at the same time. At a signal, all players get out of their seats on the right hand side, run forward and around their row, completely encircling that row of seats back to their own seats, the entire row running one behind the other at the same time. The row having all its players seated and up in position first is the winner. The remaining rows play, and finally the two winning rows may play for the championship.

(11) Eraser Relay

See that every seat in a certain number of rows is filled, or arrange every row so that the same number of players are in each. Fill the seats toward the front of the room, and do not allow a vacant seat between two players. Place an eraser on the front desk in every row. At a signal to start, the first player in every row takes the eraser in both hands and passes it over the head to the player behind him. This continues until the last child in the row receives it. This child takes the eraser, runs forward on the right side of his row, and places the eraser on the rack at the front of the room, then returns the same way to his seat. The children should each be given a chance to sit in the last seat.

(12) Last Man

One player is chosen to be runner, another chaser. The remaining players are seated. The game starts with some distance between runner and chaser. Should the chaser succeed in tagging the runner, they immediately change parts, the previous chaser having to flee instantly for safety, with the previous runner now chasing after him. The runner may save himself at any time from being tagged by standing at the rear of any row

of seats and calling "Last Man." As soon as he does this the one sitting in the front seat of that row becomes runner. As soon as he has left his seat the entire line moves forward one seat, leaving a seat at the rear for the "Last Man." The seated players must keep their feet under the desks. The runner is never considered as having taken refuge when he stands behind a row unless he calls "Last Man" at the same time.

(13) Tag-The-Wall Relay

The players should all be seated, an even number in each row of seats. At a signal the last player in each line runs forward down the right-hand aisle, tags the front wall, and returns to place by the left-hand aisle. As soon as this player is out of the aisle the others all move backward one seat. This leaves front seat vacant, and the runner, having touched the wall, returns immediately and takes this vacant front seat. As the player sits down he raises his hand, which is a signal for the player who is now the last one in the line to run forward, the line moving backward one place as soon as he is out of the aisle. He in turn, having touched the wall, takes the vacant front seat. The play is continued in this way until everyone in the row has run.

The line wins whose player, sitting originally in the front seat, first returns to his seat.

As in all schoolroom games where there is running, the seated players should be very careful to keep their feet under the desks, so there will be nothing in the aisles over which the runners may trip.

Note: This game develops both alertness and concentration.

(14) Teacher and Class

This game may be played with either bean bags or balls, and is one of the simplest and earliest tossing games, being generally used when pupils are first acquiring skill in handling a ball. With very rapid play and greater distance between the "teacher" and the "class," it may become very interesting, however, for older players.

One player is chosen for the "teacher." The others stand in line side by side, facing her at an interval of from five to twenty feet. Where there are many players, there should be several groups of this kind, with a distinct interval between groups to avoid mistakes or confusion. It is desirable to have from six to ten players for each "teacher." The teacher starts the game by tossing the ball to each pupil in turn, and it is immediately tossed back to her. Each pupil missing goes to the foot of the line. If the teacher misses, the player at the head of the line takes her place, the teacher going to the foot. The action should be as rapid as possible. This is an excellent game to use in teaching the various catches and throws used in the simple team games leading to basket ball.

(1) Japanese Tag

One player, chosen to be "It," attempts to tag any one of the other players. A player tagged becomes "It" and must chase the others with his hand on the spot where he was tagged until he tags some one else. A good deal of spirit may be added to the game by having the runner try to get the other players into awkward positions by tagging them on the heel, ankle, etc.

(2) Nose and Toes Tag

One player, chosen to be "It," attempts to catch any one of the other players. A runner may escape being caught by grasping his nose with his right hand and the toes of his right foot with his left hand. A player tagged becomes "It."

(3) Prisoner's Base

The ground is divided into two equal parts, with a small base or prison marked off at the farther end of each division. From five to fifteen players guard each side. Players venture into the enemy's ground trying to reach the enemy's goal and, if caught, are put into the prison, where they must remain until tagged by one of their own side who is free. Both prisoner and rescuer may be tagged and brought back to prison before reaching their own ground. The game is won when one side makes prisoners of all of its opponents, or when a free man enters the opponent's prison when there are no prisoners there.

(4) Stealing Sticks

A large playing space is divided across the middle by a well-defined line. The players are divided into two teams, A and B, with a captain for each team. At the extreme back end of each side, in the middle, three sticks of wood or Indian clubs or bean bags are placed, which are called the "booty." Over in one corner on a line with the booty is marked off a space about 4 feet square which is the prison.

The object of the game is to steal the sticks, or booty, of the opposite team. As soon as any player crosses the center line he is in enemy territory and is liable to be caught, but if he can succeed in capturing a stick, club, or bean bag, or whatever is being used as booty, he may then return to his own side in safety. If he is caught before he gets the stick, he must go to prison and wait there until a player from his own team comes to get him. As soon as the one who rescues him touches his hand, they may both return to their own side without being tagged, as in the case of the capturing of a stick. The game ends when one team has all the booty and none of its men in prison. If time is called, the team having the greater number of sticks or prisoners wins.

Rules:

1. The game must not start until a definite signal is given.
2. Only one stick (bean bag, ball, etc.) or one prisoner may be taken at a time by any player.
3. Not more than one player may guard either the sticks (booty) or the prison.
4. The guard of the sticks (booty) may not sit or stand upon the sticks, but must leave them well exposed.
5. The last prisoner caught at any time during the game, must stand with at least one foot in the prison; the other prisoners may then stretch out from him, but must keep their hands or feet touching, all of the time, in one continuous line. The rescuer then takes the first one in the line each time, until all are freed.
6. No prisoner may run out to meet a rescuer who is coming toward him.

Remarks: Coach players to use strategy in making advances for booty; as, for example, by having several make a concerted attack and thus confuse their opponents. Urge them to take risks and thus keep up the interest of the game. In cold weather it is suggested that prisoners either be allowed to escape or else be exchanged in order to avoid having them stand still too long.

Sometimes in the midst of the game, if action seems somewhat slow, the leader calls out: "Prisoners may escape." Allowing prisoners to escape creates great excitement and makes everybody move.

This game is practically a universal favorite, affords much exercise, holds the interest of players, and tends to encourage timid children to be less afraid.

(5) Three deep

This game may be varied by having players standing facing inward in a double circle or partners standing one back of the other. In this case the runner saves himself by stopping in front of some couple, the last person in the row of three deep becoming runner.

(6) Black and White

Two parellel lines, about 60 feet apart, are drawn to form the goals. The players are divided into two teams, the Blacks and the Whites, who stand facing each other and about five feet apart, near the center of the field. A cube, which has been painted black on three sides and white on the remaining three sides is rolled on the floor between the two teams, by the teacher. If the black side is uppermost when the cube stops, that team chases and tries to tag the other team, who dash immediately to their goal of safety (beyond the line). All those who are tagged must join the opposing team and assist them in tagging. The teams come back to the center and the game is repeated. The side which has caught the greatest number of opponents in a stated length of time is the winner.

Variation:

This game may be varied by giving points for the tagging of opponents, one point being given to the chasers for each player tagged. The side having the greater number of points, gained in a given length of time is the winner.

(7) Circle Dodge Ball

Any number of players, divided into two equal teams, may take part. A circle about 25 feet in diameter is marked out and one team takes its place within this circle, the other one on the outside. The object of the game is for the outer or circle team to hit the players of the inner team with a basket ball or other ball, thus putting them out of the game as fast as it succeeds in hitting them. The game is played in two halves of several minutes each. Each team is within the circle during one half. The team having the greatest number of players left in the circle at the end of a half is the winning team. The ball can be thrown only by a person outside of the circle. In case the ball stops in the circle, a circle player may recover it, throwing it to another circle player or carrying it outside the ring before throwing it. Only one player (the first one hit) may be put out by one throw of the ball and this must be by a direct hit. Caution players to throw at lower part of the body and not too hard.

(8) Newcomb

Players in two teams not necessarily of equal number. The playing space may be a basket ball court or a volley ball court. Stretch a rope or a volley ball net across the middle of the court at a height of five or six feet. Use a basket ball, volley ball, or soccer ball. Send one team to each side of the net and give the ball to one side. The umpire should have a score board or score card right at hand as scores are usually made rapidly. Unless there is a clock in plain view a timekeeper should be appointed to call time at the end of half the time set for play. When the umpire calls "play," one player of the side having the ball throws it over the net with the object of making it strike the floor in the opponents' court. The opponents try to catch the ball before it strikes the floor, and then throw it back over the net. If the ball hits the floor in the opponents' court it is a score for the throwing side. Players should be stationed about the floor so as to leave no part unprotected. Smaller players should be stationed near the net, strong throwers and good catchers near the back. It is a foul to throw the ball under the net or outside the opponents' court in any direction unless the opponents touch the ball on its way out. A foul gives a score to the other side. Only about two or three minutes will be needed for rest between halves during which time the players may change courts. The side that held the ball when time was called starts the ball again in the second

half. The side having the largest score at the end of the second half wins.

Note: This game may be played in the school room by using a rope held by two pupils.

(9) Hopping Relay

Bean bags or cardboards are placed on the floor in two rows. They should be arranged so the bags are fifteen inches apart and the rows are three feet apart. There should be ten bags in each row. The players are divided into four equal teams—A, B, C and D. Two players—one each of teams A and B—toe the starting line two feet from the first bean bags. At a signal they hop over their bags on the right foot to the other end of the row and immediately hop back on the other foot. The player first crossing the starting line scores five points for his team; one point is deducted each time the player steps on a bag or touches the floor with the other foot. The team wins whose players score the most points. The players of teams C and D hop in like manner and the winner plays the winner of A and B for the championship of the room. Variations: 1. Jump with both feet. 2. Holding one foot. 3. Jump backwards (reduce the number of bean bags in each row).

(10) Run, Toss and Catch Relay

Stretch rope, wire, or net eight feet above the ground. Thirty feet from, and parallel with the net, make a starting line. Line up teams in single file and at right angles to the starting line. Number from front to rear. At signal No. 1, carrying a ball, runs forward, throws it over the net, catches it, and returns the ball by throwing, passing or handing it to No. 2. No. 2 receives the ball without assistance and must start his run with the ball in his possession back of the starting line. If runner fails to catch his own throw over the net, he must regain the ball without assistance, and throw again until a catch is made. The team whose last player returns first, carrying the ball across the starting line, wins. Two players holding a stick as high as they can reach may substitute for the stretched rope, wire or net.

(11) Volley Ball

See Official Rules

(12) Fongo

Any number of players, boys and girls, from ten years up.

Apparatus: Bat and Ball.

One player, standing 20 to 30 feet from the other players, bats the ball toward them as they stand at random in various parts of the field. If a ball is caught on the fly or two grounders are stopped the player succeeding in catching it now takes the batter's place, while the batter takes his place in the field with

the others. If nobody catches the ball the same player bats again.

Sometimes the following is added to the game. If, when the batter hits the ball, nobody succeeds in catching it, the first one to pick it up is allowed to roll the ball from where he picked it up toward the bat which the batter must now lay on the ground so that it is parallel to the front and rear walls. If the "thrower-in" succeeds in hitting the bat be becomes the batter. Should he miss, the same batter remains at bat.

For more skillful players, the "thrower-in" must roll the ball at the bat held upright on the ground.

Variation: First Fongo

A volley ball or basket ball is batted out with the fist. A player catching it on the fly is up. If missed the player having the ball is allowed to roll or throw it at the batter who must not move his feet but may duck his head or body. If the batter is hit he changes place with the "thrower-in." The ball may be thrown at an Indian Club instead of the batter.

(13) Center Stride Ball

All the players but one form a circle, taking a stride position, their feet touching those of the next player. One player in the center of the circle has a basket or volley ball, and endeavors to throw it between the feet of the players, who may stop the ball only with the hands. The player who permits the ball to pass between his feet, secures the ball and changes places with the center player. If a ball passes to the right side and below the shoulder of a player, that player exchanges places with the center man. A player may pass the ball outside by putting it between the feet of one of his two neighbors. The neighbor then exchanges places with the one in the center. The circle players should try to keep the ball away from the center player by passing it quickly. Two or three center players are permissible.

(14) Center Ball Tag

All of the players but one stand in a circle, with arms' distance apart. The odd player in the center tries to touch or catch the ball, which is tossed rapidly from one circle player to another. Should he be successful the one who last touched the ball before he did, changes places with him.

Variation: Add two or three center men. The one who touches the ball first is freed, the others remaining in the center with the new player, until they succeed in being first to touch the ball.

(15) Tunnel Ball

Arrange the teams in parallel columns of files, ten feet apart, abreast of a common line, players in each column three feet apart. Have all of the players spread their legs. Give the first man in each team a ball (medicine, basket, soccer). At

signal, the player with the ball rolls it back between the legs of his team mates. If necessary other players in the column help roll it along. The last player receives it, carries it to the head of the column, and sends it through again. After throwing the ball, the player takes a position with feet spread in front of the column. Each player in turn carries the ball forward until all have carried it. The team arriving at its original formation first wins.

b. Self-Testing Activities

(1) Knee Dip

Stand on the right foot, reach behind you and grasp the left foot with the right hand. Go down and touch the left knee to the floor and rise again. Do the stunt on each foot.

(2) Chair Creeper

Sit on a chair so that its back is at your right shoulder. Grasping the top of back, lie on your right side, and keeping your legs on the seat, crawl around the back of the chair head first, until you can pick up with your teeth some object such as a piece of paper from the edge of the seat at the farther corner.

(3) Crane Dive

Fold a piece of paper a foot long and stand it upright on the floor. Hold one foot with the opposite hand, reaching across behind the back. Bend down and pick up the paper with the teeth without losing the balance or touching the floor with any part of the body except the one supporting foot.

(4) Jumping Jack

Drop to a full squat with knees bent and spread, arms crossed in front of the body, upper part of the body erect, and weight resting on toes. From this position spring immediately to a standing position with the knees straight, weight resting on heels, toes pointing up, feet about 18 inches apart, hands extending sidewise. Repeat the squatting and rising motion several times rapidly, without losing the balance.

(5) Cart Wheel

Stand erect with left hand at the side, fingers spread, palm down, and right hand raised over the head. Incline the body directly to the left side, throw the right foot in the air, the left hand striking the ground. Follow immediately by the right hand and then by the right foot, the left foot striking last. When done correctly, the body has the appearance of a wheel; the arms and legs are the spokes. The more rigid the body is kept, the better is the appearance of the stunt; feet must travel straight up in the air over the head.

(6) Take a Chair from Under

Arrange three chairs in a line and place the heels on one and the head on the other, the middle one being under the back. Now, sustaining the weight of the body by the heels and the head, take the middle chair from under you with your hands (or have someone else take it away) without falling.

(7) Balancing Exercise

Place a light book on the crown of the head; place the hands on the hips; place the heels together with the feet at an angle of 90 degrees; rise on the toes; from this position bend the knees until the body touches the heels; return to standing position. The knees should be turned outward over the toes and the trunk should be erect throughout. Continue specified number of times or until book falls.

(8) Bicycling

Contestant lies on the floor and then with an upward throw of the legs stands on his shoulders, legs above head. Maintaining the balance in this position move the legs as if pedalling a bicycle.

(9) Forward Roll (Somersault)

This is done by putting the hands and head on the floor, turning the head under, kicking up the feet, rolling over on the back, and coming up on the feet again. To make a good finish, grasp the ankles with the hands just before coming up on the feet, then let go as the body straightens up to its full height.

(10) Double Forward Roll

This is done the same as the forward roll except two complete turns are made without a break before coming to an erect position. You must go in a straight line.

(11) Hand Stand

Place hands on floor, spring from feet to lift them upward gradually and raise them to a perpendicular position. Head is held back.

(12) Hand Walk

This stunt needs very little description as its name tells what must be done. Go to a hand stand with the feet above the head and used as a balance. Attempt to walk on the hands. If the head is used in connection with the first method of balance, this stunt may be learned very easily, i. e., keep the head bent far back.

(13) Tie Up

Squat down with hands flat on floor, elbows inside of and hard against the knees, and arms tight against the ribs. Lean forward slowly, placing the weight of the body on the hands and elbows, until the feet swing clear of the floor. Attempt to pick up a handkerchief from the floor with the teeth and regain the original position. This is a good exercise to lead up to one form of the head stand. Instead of attempting to pick up anything, simply rest the head on the floor six or eight inches in advance of the hands and push the feet up in the air. This head stand comes easy to some boys.

(14) Through the Stick (A broom-stick may be used)

Grasp the stick with both hands behind the back, palms forward. Bring the stick over the head to a position in front of the body, arms straight, hands still grasping the stick. Lift up the right foot, swing it around the right arm and through between the hands from the front over the stick. Crawl through head first, by raising the stick with the left hand over the head, skinning the stick over the right knee and the back. Come to an upright position and step back over the stick with the left foot finishing with the stick still grasping in the hands in front of the body. At no time let go of the stick.

(15) Top

Stand with both feet firmly planted on the gound. Spring upward into the air and attempt to make a complete turn in the air before landing without losing the balance at the finish. Use the arms to pull one's self around. Learn to turn both right and left. The turn is a 360-degree turn; face the same wall at the finish as at the beginning.

(16) Jump Stick

The performer holds a stick horizontally between the forefingers of his hands, pressing with the fingers to keep it from falling. Keep the stick in this position and jump over it forward and backward. This same feat may be performed by pressing the middle fingers of the two hands without a stick and jumping over them forward and backward, as a dog jumps through curved arms. Draw knees well in as you jump.

(17) Twister

Two boys stand facing each other about three feet apart, with their right hands clasped. Boy No. 1 throws his right leg over locked hands and head to a straddle position, with his back to boy No. 2. Boy No. 2 follows with his left leg to same position, so that they are back to back. Boy No. 1 follows with his left leg, returning to his original position. Boy No. 2 follows with his right leg. This should be continued indefinitely and very rapidly. It may be done on the same spot or may have a rolling motion. The hands must be clasped throughout.

(18) Eskimo Roll

Boy No. 1 lies on his back while boy No. 2 stands with one foot on either side of his head. Each takes hold of the other's ankles, and the boy standing, dives forward between the legs of No. 1, turning a somersault, at the same time pulling No. 1 on his feet. The positions are thus reversed and No. 1 dives over No. 2 and they go over and over several times, always holding tightly to each other's ankles.

(19) Merry-Go-Round

Six or eight boys stand in a circle with hands firmly clasped. Upon a signal every other boy with a slight spring and holding his body stiff thrusts his feet into the center of the circle touching the feet of the others, who have done likewise. As soon as this is done the standing boys run in a circle giving the lying boys a fast ride. The lying boys should hold their bodies up so that they will not sag onto the ground.

(20) Rooster Fight (a)

A circle is drawn upon the floor. Two players squat within it and place a stick under their knees, the arms under the stick and hands clasped in front of the knees. Each endeavors to tip his opponent over.

(21) Rooster Fight (b)

Each contestant must stand on one foot and fold his arms than hop on one foot and bunt the other with the shoulder and try to make his opponent touch the other foot to the floor. As soon as one contestant touches the foot he is not hopping on to the floor, he loses.

(22) Hand Wrestling

The wrestlers stand with right foot advanced, clasping right hands. The object is to make opponent move a foot from its position. This constitutes a throw.

(23) Toe Wrestling

The wrestlers are seated on the ground facing each other, with hands clasped about the knees. A stick is placed between the arms and knees while in this position. The object is to get the toes under those of the opponent and roll him over backwards. If either wrestler breaks his handclasp about the knees, it constitutes a victory for his opponent.

(24) Indian Wrestling

The wrestlers lie upon backs side by side with arms locked, legs extended in opposite directions. The right legs are raised and lowered twice. At the third raising, they lock legs together, and each endeavors to bring his opponent's leg down to the ground thereby turning him upon his face.

(25) Elbow Wrestling

A table or some flat surface is necessary for this event. The opponents stand on opposite sides of the table, placing the right elbows together on same. They clasp hands and endeavor to push the back of the hand of the opponent down on the table without lifting the elbow.

(26) Twist Stick

Two grasp a wand or broom handle high over their heads. At the word "go" the stick must be brought down between them, thereby twisting within the hands of one of the players.

(27) Pull Stick

Two sit upon the floor, toes against toes. They grasp a broom handle between them and at the signal each tries to pull the other up off the floor (Can be used without stick by opponents grasping hands, using the hook grasp).

(28) Cockfight

A circle four feet in diameter is drawn upon the floor or ground. Two players standing on one leg, both hands grasping the other foot behind their backs, endeavor to make the other step outside of the ring, or break his clasp upon the upheld foot, by shouldering each other.

(29) Dog Fight

Two place themselves on hands and knees facing each other about three feet apart. Their leather belts are linked together. The linked belts are thrown over their heads. The players must keep heads up and back. At the word "go" the players pull against each other until one of them is pulled across the line three feet back from where the players started, or until his head is pulled forward thereby releasing the strap.

c. Athletic Activities

(1) Shuttle Broad Jump

Draw a line on the ground. The first jumper from team "A" toes this line and jumps. A mark is placed at this jumper's heels. The first jumper from team "B" toes this mark and jumps in the opposite direction. This continues until all on both teams have jumped. If the last jumper from team "B" crosses the original line, his team wins. If he falls short of this line, team "A" wins.

(2) Soccer Kick for Distance

Establish a base line. Place the ball on this line. Participant is allowed a run before the kick. Measure from the base line to the point where the ball first hits the ground. Three trials are allowed, the best distance scoring.

(3) Standing Broad Jump (Boys)

The performer stands on both feet toeing a line. He may rock forward and back alternately, but may not lift either foot clear of the ground. The jump is made from both feet to a landing on both feet. After landing, he must fall forward and walk forward, as the measurement is made from the toeing line (or front edge of the take-off board) to the nearest point where the body touches the ground.

(4) Punt Back

This is a game in punting between two teams of from three to ten players, on a field of varying size. A soccer ball is punted back and forth, i. e., held on the hands and then dropped, but kicked while still in the air. A player catching the ball on the fly is allowed three steps forward. The player "marking" the ball, i. e., catching the ball with his heel fixed on the ground, is allowed five steps forward. If not caught on the fly the ball is punted from where it was first touched by a player, or where the ball rests when recovered. To score, it is usually specified that the ball must be "drop-kicked," i. e., held in the hands then dropped and kicked at the instant the ball touches the ground, over the opponents' goal or goal line. Each successful drop kick counts one point. The game may be played in two halves with a definite time limit. The team scoring the largest number of points wins.

(5) Standing Hop, Skip and Jump (Boys)

The pupil stands on one foot at the take-off, hops forward, landing on the same foot, cuts the other foot in back of the hopping foot, landing on it, and leaps forward onto both feet. From start to finish the performance is continuous without a pause. The distance is measured as in the standing broad jump.

(6) Running High Jump (Boys)

In the running high jump three trials are allowed each boy at each height. The crossbar should be a thin stick, 1 inch by 1 inch by 14 feet, and should rest on pins which project not more than two inches from the uprights. When the bar is removed by a jumper, it constitutes a trial jump without result. The height is measured from the middle of the bar to the ground on a direct line. Running under the bar in making an attempt to jump is counted as a balk and three successive balks shall constitute a trial jump. Holes ⅜ inches in diameter should be drilled in the standards at one-inch intervals so the bar can be raised one inch at a time.

(7) Pull Up

Equipment—A horizontal bar.

Rules—The overhand grasp; i. e., back of hand toward face, thumbs under the bar, hands shoulder width apart. The feet

must clear the ground. Each contestant hangs from the bar with arms and legs straight, feet together. He must pull himself up so his chin is over the bar. He must lower himself after each pull-up until his arms are straight. Only a pull-up without snap, swing or kick, shall score.

Hints or Development of Ability—Practice hanging and exercising in hanging position on bars, rings, horizontal ladder, etc; climb rope.

(8) Basket Ball Throw for Goal

Equipment—Basket ball; backstop and basket. From a line perpendicular to the middle of the backboard, draw a semicircle with a radius of fifteen feet.

Rules—Ten throws are allowed. The first throw is taken from any point outside the semicircle. Each of the remaining nine throws is taken from the point at which the ball is recovered after the preceding throw. Try to recover the ball before it hits the ground. If the ball rolls out of the court or beyond the semicircle, the next throw is taken from the starting point. The contestant must not take a step after recovering the ball. The ball may not be held more than three seconds. Any style of throwing may be used.

Practice Events—Receiving a pass while running toward the basket and throwing for goal; receiving a pass while running away from the basket and throwing for a goal; throwing for basket from a short distance and increasing the distance as each successful throw is made; throwing foul goals from the foul line; scooping the ball from the ground while running and throwing for goal in one motion; all styles of throwing for basket should be practiced.

Variations—When timed, one minute allowed. Throwing is started from a line fifteen feet from the backstop. After the first throw the contestant may catch and throw from any spot. The object is to throw as many baskets as possible in one minute. Bouncing the ball wastes time. When not timed, throwing is started from a line fifteen feet from the basket and continued after the first throw until a failure is made. The thrower stands for the next throw at the point where the ball is recovered. If it goes out of bounds, return to the fifteen-foot line. This series of trials is repeated twice more—three times in all. The total baskets made in the three series is the score. It is a foul to step on or over the fifteen-foot line when throwing from behind the line. A basket made while doing this does not score, and counts as one of the series.

(9) Baseball Batting for Accuracy

Draw two diverging lines six feet apart at the point where the batter stands, and fifteen feet apart at a distance of ninety feet. From the batter's line, for scoring purposes, draw cross lines at sixty feet for the fifth grade, seventy feet for the sixth grade, eighty feet for the seventh grade, and ninety feet for the

eighth grade. Each player tosses up the ball and tries to bat it. Ten trials are allowed. If the batted ball strikes the ground and rolls across the line for the player's grade, and within the side lines, or if a fly strikes within ten feet of this cross line and within the side lines, it is a perfect hit. The total number of perfect hits gives the score.

d. Folk Dances

†Comin' Through the Rye

Dutch Couple Dance

*Minuet I	Victor record	17087
*†Virginia Reel	Victor record Columbia record	20447 50018D or 33048F
*The Ace of Diamonds	Victor record Columbia record	20989 or 17083 A3001
*Gustav's Skoal	Victor record Columbia record	17330 A3046
*Highland Schottische	Victor record Columbia record	17331 A3039
*Sailors Hornpipe	Victor record Columbia record	17840 A3054
*Highland Fling	Victor record Columbia record	17001 A3000

Music and description found in
*Course of Study in Physical Education for Grades I-VIII. Harrisburg: Department of Public Instruction. 1928.
† Dykema, P. W., "Twice 55 Games with Music." Boston: C. C. Birchard and Company.

H. ORGANIZATION AND LEADERSHIP OF PLAY ACTIVITIES

1. **Classification of Pupils.** The pupils should be classified tentatively into groups. This grouping may be changed as the teacher becomes better acquainted with the pupils.

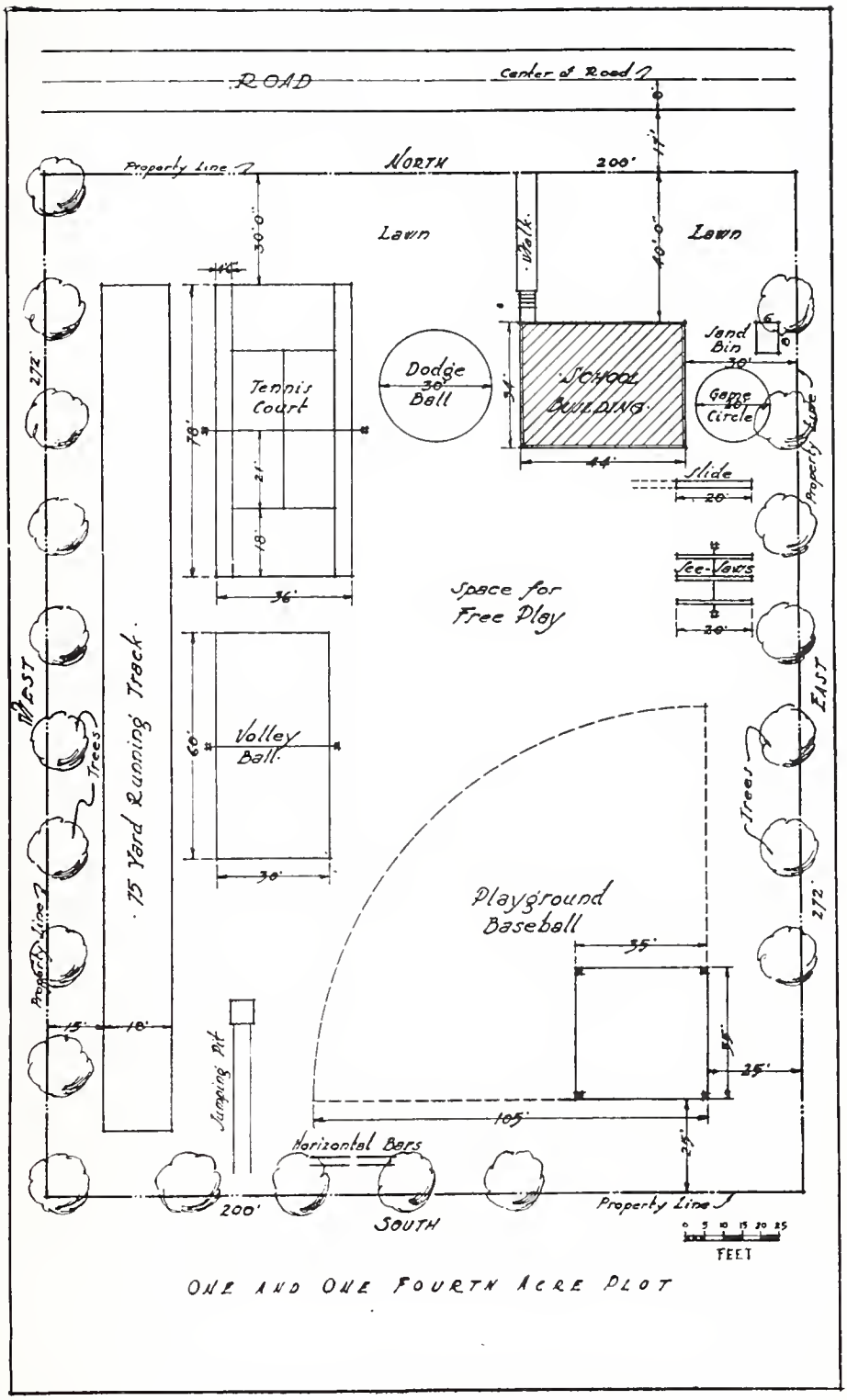
By Grades	By Ages
	Group I
Boys and girls Grades 1, 2, 3	Boys and girls Ages 5-8 inclusive
	Group II
Boys Grades 4-8	Boys and girls Ages 9-11 inclusive
	Group III
Girls Grades 4-8	Boys and girls Ages 12-15 inclusive

(Note: In some schools groups II and III may be combined. Size and ability should be considered in individual cases.)

2. **Selection of Leaders.** Select at the beginning of the year the pupils who indicate leadership ability in games and play activities. Use these pupils to assist in directing the play period. They may act as leaders, judges, score keepers, captains, etc. Always permit them to participate during some part of the period. Eventually all pupils should have an opportunity to serve successfully as leaders in some activity.

3. **Selection of games.** The following factors should be kept in mind in selecting games.
   a. Choose games for the open air and sunshine when weather permits.
   b. Select vigorous games involving the use of the large muscles.
   c. Select games for classroom during inclement weather which provide sufficient activity to be stimulating.
   d. Choose games which will permit all pupils to participate actively the greater part of the time.
   e. Choose quiet games to follow vigorous games.

4. **Teaching Games.**
   a. Use the instruction period for physical education for teaching games.
   b. Usually teach new games in classroom demonstrating with small groups.
   c. Organize pupils before going to playground.
   d. Teach one game at a time and teach it thoroughly.
   e. Know the rules and teach them to the pupils.
   f. In games involving the learning of new skills and rules, let pupils try game, get the idea of it, feel the need for practice, then practice fundamentals.
   g. If a game is not going well, stop it, take care of difficulties, then restart the game.
   h. Keep up the spirit of play and make play vigorous.
   i. Establish agreement with pupils regarding fair sports, good sportsmanship and obedience to the rules.
   j. Train pupils to respond to whistle signal by stopping and listening.
   k. Never attempt to explain or to present a game until quiet and attention are attained.
   l. Do not continue to play a game when interest begins to wane.
   m. Provide continued interest from one period to another through regular teams, and scheduled contests, score; point systems, and tournaments.
   n. Plan to direct at least one recess period each day.



ONE AND ONE FOURTH ACRE PLOT

Suggested playground

5. **Pupil Leadership.**

a. Leaders may be selected on the basis of ability, attitude, personality and influence with other pupils.

b. Leaders may be selected by the pupils.

c. Every pupil should have the opportunity of serving as a leader in some activity.

d. Give definite instruction to leaders regarding their duties.

e. Leaders may be utilized to

Open windows and attend to ventilation during the period for indoor activities.

Have charge of distribution and collection of supplies for games.

Lead activities for older pupils under supervision of the teacher while she conducts the activities for the primary pupils.

Demonstrate new activities.

Assist the teacher in directing and supervising the play periods.

Keep records, scores, etc., for games and other activities.

Act as game officials, starters, judges, umpires, and referees.

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HEALTH INSTRUCTION

A. AIMS IN HEALTH INSTRUCTION

1. **General Aim**

To promote such health habits, skills, attitudes, and knowledge as will enable the individual to make adjustments for right living.

2. **Specific Aims**

a. To establish health habits

b. To maintain at all times a clean and sanitary school environment.

c. To present to older pupils, information and experience associated with the feeling life of the child supporting the health habits and attitudes, so motives will be strong enough to facilitate the carrying out of health habits and attitudes during school life and the continuance of them in after school life

d. To develop an understanding and an appreciation of, and right attitudes toward physical, mental, social and moral health as a basis for happiness and service in personal, family and community life

B. COOPERATION IN SECURING AIMS

The increasing number of schools in our Commonwealth showing achievement in some of these specific aims, should encourage every teacher to work for definite results. Greater cooperation in the home is secured as parents understand better the purposes of the health activities introduced. School directors are providing more equipment and facilities for the carrying out of the health program as they see the value of the use made of these provisions. Through the channels of the Parent-Teacher Association, the Grange, and other organizations, information is being circulated which is developing appreciation on the part of adults for health instruction in regard to foods, fresh air and sunshine, sleep, rest, activity, cleanliness, safety, correction of remediable handicaps, and prevention of communicable disease. The interest and responsibility which county superintendents are taking in developing the health program in the one-room schools is making one of the greatest contributions to the health of the children in these districts.

C. PROGRAM IN HEALTH INSTRUCTION

The Program in Health Instruction by Months for Grades I-VIII has been prepared to help teachers organize the year's work to the best advantage. Objectives are placed in the months when more situations are likely to occur which provide opportunities for health practices related to the objective given for the month. Whenever a situation arises which furnishes an excellent occasion for clinching a health outcome not listed for that month, the teacher is to feel free to change her program to use this opportunity. The program must be *flexible* if it is to meet the health needs of pupils.

PROGRAM IN HEALTH INSTRUCTION

Month	OBJECTIVES	Grade I	Grade II	Grade III
Sept.	Cleanliness Clean children in clean schools	Clean hands Clean face Clean neck Clean ears Outcomes: 1, 2, 5, 6, 18, 24, 33, 34	Care of hair Care of nails Outcomes: 19, 20, 35	Care of mouth No foreign articles in the mouth—fingers, pencils Outcome: 15
Oct.	Posture and Play (Rest and activity) Every pupil participating in games	Play Outcomes: 9, 10, 11, 28, 36, 41	Posture—Marching Outcomes: 37, 42, 43, 46	Posture—Writing Outcomes: 29, 45, 12
Nov.	Prevention of Colds Fresh air in room Outside wraps removed in classroom	Use of clean handkerchief Outcomes: 4, 7, 13, 14, 30	Every child with clean handkerchief Outcomes: 4, 7, 13, 14, 30	Remember to use handkerchief correctly Outcomes: 4, 7, 13, 14, 30
Dec.	Foods Food eaten at school wholesome	Drink milk Outcomes: 25, 26a	Eat fruits and green vegetables Outcomes: 26b, c	Eat cereals and hard breads Outcomes: 26d, e
Jan.	Safety Education Safety practiced at school	Dry feet Outcomes: 32, 40	Use and care of sleds Outcomes: 32, 38, 40	Street crossing Outcomes: 32, 38, 40
Feb.	Remediable Physical Handicaps Correction of remediable physical handicaps	Care of teeth Outcomes: 17, 22, 44	Care of teeth Outcome: 22	Dental care Outcome: 31
Mar.	Communicable Disease Prevention of communicable disease	Clean food (Fruit, or any food brought to school) Outcome : 8	No candy at school (Calls flies) Outcome: 8	Wash hands before eating Outcomes: 8, 23
Apr.	Special Habits Improve in some health habit by Child Health Day, May 1st.	Teacher decides in Grades I, II, III, IV, which habits shall be stressed. Outcomes: Those related to habits chosen by teacher.		
May	Preparation for Vacation Choose project for vacation	Habits to practice in vacation. Each child makes poster to remind him of habit to be improved during vacation.		

OUTCOMES will be found on the following pages under the grades designated.
Wall copies of this program will be furnished by the Department of Public Instruction.

BY MONTHS FOR GRADES I-VIII

Grade IV	Grade V	Grade VI	Grade VII	Grade VIII
Care of teeth No cavities in six-year molars Outcome: 22	Personal habits of cleanliness Outcomes: 2a-g	Care of body in regard to cleanliness Outcomes: 2a-g	Bacteria Water supply Disposal of waste Outcomes: 4, 5	Cells (body) Skin and appendages Outcome: 9
Posture—Reading Outcomes: 21, 39, 3 (Preparation for relief periods)	Posture at school Outcomes: 6, 7a, 9	Care of body in regard to activity and rest Outcomes: 21, 9	Sunshine in school room Lighting of room Seating Equipment for play Outcomes: 7, 8, 11	Bony System Muscular System Outcomes: 7, 11
Remember to remove overshoes without being told Outcomes: 4, 7, 13, 14, 30	Preventing colds at school Outcomes: 1a-i, 7b	Care of body in regard to colds Outcome: 5b	Ventilation Temperature Humidity Movement of air Clothing Outcomes: 1, 2, 3, 6	Respiratory System Circulatory System Outcomes: 1, 2, 3, 6, 14
A good breakfast Outcome: 27	A good lunch Outcomes: 2b, 8	A good dinner Outcome: 8	Selection of foods Outcome: 13	Digestive System Eliminative System Outcomes: 13, 4
Slippery slides Outcomes: 32, 38, 40	Snow balling Safety practices at school Outcome: 4	Safe coasting Safety practices at home Outcome: 4	Public safety Measures taken in community and state Outcome: 12	Safety Education First Aid Outcome: 12
Dental care Outcome: 31	Correction of remediable physical handicaps Care of eyes and ears Outcomes: 3, 5a	Correction of remediable physical handicaps Special senses Outcomes: 3, 5a	Health agencies and service available for maintaining health Outcomes: 8, 10	Nervous System Relation of health handicaps to nervous system Outcomes: 8, 10, 15
Wash hands after visiting toilet Outcomes: 8, 16	Kill flies seen Outcome: 5b	Destroy breeding places of mosquitoes Outcome: 5b	Measures that may be taken in the home to prevent the spread of communicable disease Outcome: 14	Measures of prevention to be taken in the community Quarantine Immunization Outcome: 14
	Mental habits Outcome: 10	Special habits Outcome: 11	Measures that may promote desirable mental and emotional habits Outcome: 16	Effect of use of alcohol, tobacco, drugs, patent medicines on physical, mental, and emotional health Outcomes: 15, 16
	Plan project that may be carried out during vacation Outcomes: 1-11	Apply lessons of the year to a picnic Outcomes: 1-11	Apply lessons of the year to a hike Outcomes: 1-16	Apply lessons of the year to a camping trip Outcomes: 1-16

D. OUTCOMES IN TERMS OF HABITS, SKILLS, ATTITUDES AND KNOWLEDGE*

The outcomes include a minimum list of habits, skills, and attitudes with which teachers should become familiar in order that they may make use of correlations with other subjects or with incidental situations through the day, as well as, of the regular health lesson period. That teacher is to be commended who, through a study of the health behavior of the pupils, adds outcomes to this list. The knowledge which is to be stressed is to be related to the habits, skills and attitudes given, and should be adapted to the ability and needs of the group included.

GRADES I-IV

1. Comes to school clean
2. Keeps the floor clean and desk tidy
3. Helps in opening and closing windows when easily opened
4. Cleans shoes before entering school
5. Has bowel movement at least once daily, at a regular time, preferably before going to school
6. Uses toilets and lavatories properly
7. Carries clean handkerchief and uses properly
8. Cooperates in the prevention of communicable disease
9. Plays out-of-doors when weather permits
10. Takes part in group games and activities
11. Holds the body in erect position when sitting and standing
12. Plays "fair"
13. Speaks clearly
14. Sings softly
15. Keeps fingers and materials that do not belong there, away from mouth, nose and ears
16. Washes hands after going to toilet
17. Learns to breath with mouth closed
18. Takes a cleansing bath at least once and preferably twice a week
19. Submits cheerfully to having hair washed
20. Keeps nails short and clean
21. Reads in a good light
22. Brushes the teeth at least twice daily
23. Washes hands before eating
24. Uses an individual drinking cup or uses drinking fountain correctly
25. Drinks three or four glasses of water daily
26. Acquires a taste for (a) milk, (b) fruits, (c) green vegetables, (d) hard breads and (e) cereals
27. Eats a good breakfast
28. Relaxes during the rest period at school
29. Sleeps required hours with windows open
30. Removes extra wraps, sweaters and rubbers when indoors
31. Cooperates in the correction of defects whenever his cooperation is needed

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* The knowledge presented is that which is related to these habits, skills and attitudes. This must be adapted to the ability of the group included.

32. Stays on sidewalk and avoids playing or walking in the streets
33. Looks in both directions before crossing the highway
34. Keeps on left side when walking on highway
35. Upon leaving bus or street car, waits until bus or car moves on before crossing the highway
36. Is able to give name, address and telephone number
37. Keeps at a safe distance from fires
38. Helps to keep stairways and exits clear
39. Recognizes poison ivy and other common poisonous plants and avoids them
40. Practices safety at school (Local situation determines practices emphasized.)
41. Enjoys work and play adapted to his ability
42. Is friendly toward other children
43. Is willing to share his possessions when advisable
44. Concentrates on his work; pays attention to the task at hand
45. Remains good natured under trying circumstances
46. Waits for his turn

GRADES V-VI

1. Appreciates keeping conditions at school conducive to good health
   a. Ventilation
   b. Temperature 68°
   c. Humidity
   d. Cleanliness of room
   e. Tidiness of room
   f. Light in room
   g. Seating in room
   h. Toilets
   i. Grounds
2. Continues health habits formed in previous grades
   a. Comes to school clean
   b. Washes hands before eating and after visiting toilet
   c. Takes cleansing bath at least once a week
   d. Carries clean handkerchief and uses properly
   e. Keeps articles that do not belong there out of mouth
   f. Brushes teeth twice a day
   g. Has definite personal interest in regularity in visit to toilet
   h. Drinks four to six glasses of water daily
   i. Recognizes needs for sufficient rest
      (1) Sleeps required hours with windows open
      (2) Rests after vigorous exercise (work and games)
3. Gives eyes and ears proper care
4. Practices safety (Local situation determines practices emphasized.)
5. Develops right attitude toward (a) correction of remediable handicaps, (b) preservation of health through measures for prevention of communicable disease
6. Takes pride in good posture

7. Wears clothing (a) that gives body freedom to maintain good posture, (b) that keeps body properly clothed
8. Takes pride in including milk, fruit, vegetables, and well-cooked cereals in diet
9. Enters with zest into games and work
10. Forms right mental habits
11. Avoids use of harmful drinks and drugs

GRADES VII-VIII

1. Desires good ventilation
2. Gives attention to humidity in school room in winter
3. Chooses to work in cool room
4. Realizes his need of water and provides for this need
5. Forms habits of cleanliness and orderliness
6. Dresses in way to promote health and gives clothes proper care
7. Chooses seat best suited to size
8. Uses eyes only in good light for close work
9. Continues habits that improve personal appearance
10. Desires to have all remediable handicaps corrected
11. Participates in outdoor activities
12. Practices safety
13. Forms correct food habits
14. Uses measures for prevention of communicable disease
15. Gives body required sleep and rest
16. Establishes desirable mental and emotional habits and attitudes

E. SUGGESTIONS FOR GRADE GROUPS

1. Grades I-IV

a. Time Allotment

When supplemented by correlations with other subjects, morning inspection, proper use of lunch period and incidental situations, one fifteen-minute period each week is considered sufficient in the first four grades.

b. Situations for Health Training and Instruction

The most effective teaching in these grades is accomplished through the use of situations where children may develop health habits and attitudes through participation in different activities, e. g., the morning inspection; lunch period; recess; use and care of wraps and desks; accidents; safety practices; use of individual cup, pencil, towel, comb; correct use of handkerchief; incidental situations.

(1) Morning Inspection

This procedure gives the teacher an opportunity to look for results in health practices. By her appreciation of the pupil's efforts, each child is stimulated to give attention to personal appearance. Through the instruction given in health periods, gradually pupils gain simple knowledge which help them to understand these health practices are desirable for everyone, at home as well as in school. The

method for carrying out the inspection is left to the teacher. In some schools the pupils remain in their seats or by their desks while the teacher passes through the aisles making her examination. In other schools the teacher stands with her back toward a window while pupils pass her in single file. When pupils understand a set form for inspection, time is saved. The turning of head, showing of teeth, hands and wrists, should be done in regular order and promptly. To have the morning inspection effective, it is essential that the teacher organizes her plan well, that she shows courtesy in her inspections and that the children find satisfaction in the procedure. Among the points (not all each morning) to be noted in the inspection, the following are suggested: clean hands, face, neck, ears, teeth, finger nails, handerchief; clean and brushed hair; neat appearance; good posture; outside wraps removed.

Placing emphasis on a few habits at a time until improvement is made then adding others as the teacher sees the need, seems most satisfactory. For those habits which are so well established that the teacher thinks the inspection is unnecessary, it is recommended that they be included at least once a week. When the teacher is looking for these conditions, emphasis is to be made on appreciation of desirable achievements; those conditions that are found undesirable are to be reported quietly to the individual child and, when possible, efforts are made to help him to improve appearance before the session is over.

The most important part of this inspection is the attention the teacher gives to *any unusual condition* in the child. Without the child being conscious of the fact, the teacher looks for indications of illness, e. g., unusual flush or pallor, red or discharging eyes, nasal discharge, unusual rash or skin eruption, frequent or spasmodic coughing, acutely swollen glands, sore throat. The early discovery of illness and exclusion of the child from school help to protect this child as well as other children. The contacts which many teachers have made with the homes to help solve some of the problems discovered in these inspections have resulted most beneficially for the children. The parent understanding better the motives of the teacher often makes suggestions for meeting the difficulties. The teacher in many cases realizing the situation in the child's home discovers other means of meeting his health needs.

By checking the list of outcomes for the first four grades, the teacher will find through morning inspection, which need take only a few minutes when well organized, that the following outcomes may be promoted: Nos. 1, 4, 7, 8, 11, 17, 18, 19, 20, 22, 30, 46.

(2) The Lunch Period

In those schools where children bring their lunch, teachers have one of the finest situations for health training and

instruction. By good organization and use of pupil-responsibility for certain services, many school rooms have been changed at the noon hour from boisterous centers where hygienic conditions were not observed, to pleasant social groups with whom any teacher might enjoy lunching. The procedure varies in different schools but usually includes most of the following essentials.

Preparation: Monitors for liquid soap, for water, and for paper towels, stand in their places. Pupils keep in line as they pass each monitor and receive service. (Pouring water on the hands is more sanitary than having children wash hands in the common basin. For small children the towels are cut into halves. Each year more school directors are furnishing schools with towels as they see the satisfactory results. Some teachers make arrangements for heating cans of food and roasting potatoes which children have brought from home.) Pupils then pass to their own seats with lunch boxes.

Lunch: Clean paper or napkin is placed on desk. Children eat slowly and quietly. Opportunity is given for pleasant conversation. All wait until excused by teacher. Each pupil takes care of his lunch box and sees that his desk and floor are tidy.

Often the teacher's example or commendation of some pupil in reference to care of food or choice of food, influences pupils, e. g., use of napkin; wrapping of food with waxed paper; introducing vegetable sandwiches, fruits, milk; and bringing foods to be heated at school.

Again by checking the list of outcomes for the first four grades, the teacher will find situations for developing the following: Nos. 1, 2, 11, 23, 24, 25, 26a, b, c, d, e, 42, 46.

(3) Recess Periods

Through the utilization of the recess period for directed play by the teacher for all pupils, opportunities will be provided to promote the following outcomes: Nos. 4, 6, 9, 10, 12, 13, 24, 32, 33, 38, 40, 41, 42, 43, 45, 46.

c. Suggestions for Health Lessons

When the teacher uses these activities (those under "b") for practicing health habits and developing health attitudes, she can then give the health instruction period to bringing out the necessary information related to these outcomes. The younger children may not be able to understand the significance of health practices at first but gradually they acquire the simple knowledges which help to make the meaning clear. These knowledges

must be related to the experience of the child to be of value to him. Where all four grades are in the class, care should be taken to give something simple enough for first and second grades to understand, but part of the period should be given to material that is stimulating the third and fourth grades to increasing effort. The teacher should be supplied with a good modern text adapted to the primary grades.

d. Correlations

Familiarity with the outcomes for these grades will help the teacher to see the possibility of correlations which may be made with other subjects especially in English, art, nature study and science. When opportunities are used repeatedly for children to practice health habits and to develop favorable attitudes toward healthful practices and environment without emphasis on health as the goal, health becomes a by-product of right living rather than an end in itself. This is particularly desirable with younger children.

2. **Grades V-VI**

a. Time Allotment

Thirty minutes a week are recommended for grades five and six. Where the Program in Health Instruction by Months for Grades I-VIII is followed and the pupils study content in text devoted to the objective for the month, teachers find it advantageous occasionally to combine the upper four grades for some discussions in hygiene. Reports are given by grades five and six and then suggestions are added by the upper grades.

b. Situations and Activities

The morning inspection described for primary children is used successfully by tactful teachers in these grades. These pupils may share in the pupil-responsibility during the lunch period. Activities occurring outside of school will often provide a center for discussion of lessons in this group, e. g., what habits would a Boy Scout be likely to form that would help fit him for a trip with Commander Byrd?

c. Suggestions for Health Lessons

The lessons in health instruction should be organized so that pupils may know for what they are working when preparing lessons, and they should be able to apply the suggestions which are learned to their own health behavior. Using the text and other materials as tools to help solve health problems developed in the group is meeting the approval of many teachers. Pupils should be supplied with copies of good modern texts in health. Teachers should be provided with desk copies of texts by other authors for reference and suggestions.

(1) In the fifth year's work a careful study of health behavior is made. Each month the class makes a survey of habits related to the objective for the month which are practiced by

the group. Effort is then made to develop those habits in which each pupil finds he is weakest. The emphasis is to be placed on improvement made by the individual over his former record rather than his doing better than his neighbor. The topics in the textbooks associated with the objective for the month are studied instead of following pages consecutively. This plan helps pupils to use text to gain information for a purpose. Health booklets on these habits may be made which include illustrations, pupil's notes in regard to them, graphs showing improvement in habits, and original rhymes, slogans or sketches which may develop favorable health attitudes.

(2) In the sixth year, the purpose of the lessons is to stimulate a greater interest in healthful living through increasing knowledge of the body and its need of care. The main divisions of the body will be studied only inasmuch as they are necessary to understand the most essential body processes which keep the body in working condition. It must be understood this is a preparation for the following year's work, not a substitute. The topics for the year will be on the care of the body, (1) through keeping the skin and its appendages clean, (2) through proper use of muscles (rest and activity), (3) through proper care of the breathing passages, (4) through desirable nutritional habits which affect digestion, (5) through safety practices in the home, (6) through proper use of special senses, (7) through some measures for prevention of communicable disease, (8) through avoidance of harmful drinks and drugs.

d. Survey of Work in Grades V-VI

The teacher should help pupils to see achievements in health behavior made by the group. Frequent discussions on the improvements in the class which pupils can see for themselves are effective. Surveys on the observance of practices included in the objectives and outcomes for the month may be made. Graphs help to visualize accomplishments and to stimulate interest in these activities.

3. Grades VII-VIII

a. Time Allotment

In these grades, thirty minutes a week is required for health instruction. Time for correlations with other subjects will be used when teacher deems it advisable.

b. Situations and Activities

Activities that help maintain a healthful environment may be in charge of committees or monitors selected from these grades, e. g., adjusting of shades, watching thermometer, making preparations for lunch, leading in outdoor activities, helping younger pupils observe safety practices on the school ground

and on the highway. What their part in the morning inspection shall be, must be determined by the teacher. She needs to know the attitudes and habits of the pupils before she decides how she may be of most help to them, and they in turn be of most service in the promotion of the health program. The first thing is to secure their interest and cooperation.

c. Suggestions for Health Lessons

(1) The purpose of the lessons in these grades is to give some of the most essential physiological and scientific facts which help to answer why attention should be given to health behavior, personal and public. The topics given on the outlined program for grades seven and eight should be studied in their relation to the objective for the month. Two good questions for these grades are:

(a) What can we as seventh and eighth graders do to help the school reach the objective for the month?

(b) Why should so much attention be given to this objective? (To be answered through the study of topics assigned for month.)

(2) In the seventh year, the topics (See Program in Health Instruction by Month for Grades I-VIII) studied will usually emphasize some phase of school, home or community hygiene related to the objective for the month. Some correlations may be made with civics. Health behavior of a pupil as a member of a social group, which shares responsibility in home, school and community is to be stressed this year.

Studies of local situations in regard to topics assigned should be reported by the group each month, e. g., in September, the water supply and sewage disposal in their own community; in October, the best method for ventilating and lighting the school room.

(3) In order to cover the work of the eighth year (See Program in Health Instruction by Months for Grades I-VIII), it is is necessary to help pupils to learn to organize and to cover much of the material by themselves. They can prepare an outline on each body system including structure, function and hygiene. These outlines may be filed with illustrations found, with pupil's simple drawings (not detailed) of parts studied, with definite suggestions for applications of hygiene learned with graphs showing achievement in health practices, and other material that stimulates an interest and secures desirable results in healthful living relevant to the month's objective.

Pre-tests are given in some schools at the beginning of the month to help teacher and pupils know the weak points of the class on the month's work. The class periods are then devoted to strengthening weaknesses discovered.

F. MEASURING RESULTS IN HEALTH INSTRUCTION

1. Measurements for Teacher

a. Am I setting before my pupils, an example in health practices in desirable attitudes toward healthful living (appearance, posture, health habits, annual health examination)?
b. Am I providing for my pupils as healthful environment as possible in my room (ventilation, temperature 68°, humidity, cleanliness, tidiness, light, seat adjusted to pupil)?
c. Do I visit the home that there may be a better understanding between the home and the school?
d. Am I expecting results that affect the health of the pupils?
e. How many of the fourteen items listed under "Measurement for Pupils" have I given enough attention to secure results?

2. Measurements for Pupils

The purpose of this list is to help the teacher recognize conditions or activities which are related to the health of the pupils. By questioning herself on the results in these, she will have a clearer realization of whether her teaching and influence are helping to maintain good or improving poor conditions found at the beginning of the year.

a. Attitude of pupils toward health behavior (This is manifested by their interest and pleasure in health activities as shown in face and voice, or as expressed in words or acts.)
b. Appearance of pupils (cleanliness, tidiness, posture)
c. Appearance of pupil's desk and floor underneath
d. Use of playgrounds by pupils
e. Conduct of pupils during lunch period
f. Responsibility taken by pupils for certain duties which help maintain hygienic conditions at school and promote desirable attitudes toward health practices, e. g., adjusting shades, reporting temperature of room, preparation for lunch
g. Social adjustments with other pupils
h. Working attitude of the pupils
i. Decrease in absence due to illness and accident
j. Correction of physical handicaps
k. Immunization against diptheria and smallpox
l. Increase in weight of pupils.
m. Health habit questionnaires, records and other devices (These may determine health habits formed, those in process of formation, and those still unformed by pupils.)
n. Health knowledge tests appropriate to grade level given at beginning and end of term (Such tests help to give teacher and children some measure of their achievement.)

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VI. COURSE OF STUDY IN MUSIC

A. POINT OF VIEW

1. Importance

Music is now generally recognized as a universal human need and no longer as a luxury for the few. The need for the service of more and better music can be met only through the schools. The time has come when music must be made available to every child in the entire country, whether in city or rural schools. Equalization of opportunity in music is the dominant note in the movement to introduce music into rural schools. Given a fair chance during childhood, practically every child becomes a singing child.

2. Song Material

A collection of attractive songs, especially suited to the one-teacher school, both as regards text and music, is a necessity. The most important feature of music in the rural schools is a large and increasing repertoire of good songs. Every child who can read the text of the songs should be provided with a book. In this way a large number of songs can be taught in a comparatively short time.

3. Supervision

A capable supervisor of music in a school district serves the entire community. Not only the individual child, but the school, the home, the church and the community in general very soon benefit directly, for a live supervisor of music will promote and assist school glee clubs,

school orchestras, music in the home, church choirs and community singing, bringing the joy which music gives, into the rural community where it is needed even more than in the city.

4. Phonograph and Records

The child's musical needs demand not only that he learn to sing to develop his tonal and rythmic sense and his liking for music through the use of a singing voice, but that he also shall learn to love and appreciate the beautiful in the art through listening to music. The greatest music teacher is music itself. Therefore, learning to listen intelligently and with satisfaction to good music must go hand in hand with the child's singing and playing.

The perfection of the self-playing instruments makes this twofold development possible in the schoolroom.

The phonograph is an invaluable aid in the teaching of rote songs. And is almost indispensable to the teacher who cannot sing the songs acceptably. The self-playing instruments are also helpful in singing games, folk games and in marching. Perhaps the most important use of the phonograph is in connection with listening lessons. A liking and preference for good music, as well as an understanding and appreciation of musical literature, may be developed in the one-teacher school by means of a carefully planned course of listening lessons.

5. Suggestions to Teachers

The principle aims in teaching music are these:

a. To teach a large number of good songs in a manner to give pleasure and satisfaction to every child.
b. To lead each child to form the habit of singing in a musicianly manner with pleasing tone quality, natural pronunciation and distinct articulation.
c. To teach each child to listen intelligently and with satisfaction to suitable music played upon reproducing instruments.
d. To give every child of suitable age the opportunity to acquire skill in elementary sight reading.

Division of the one teacher school for the music period is not desirable during the first year after music has been introduced. Thereafter the school should be divided into two groups. The first group, including grades 1 to 4, should have two 20-minute periods per week, presumably on Monday and Wednesday. The second group, including grades 5 to 8, should have two 20-minute periods per week, presumably on Tuesday and Friday. These two groups should be combined for one 20-minute period per week, presumably on Friday, for singing and the development of music appreciation.

B. OUTLINE OF SUBJECT MATTER

1. First Step

Obviously the first thing to be required of the child is the ability to mateh tones. At first, one-third or one-half the class may be unable to mateh tones.

The teacher must have and use constantly a chromatic Pitch Pipe. Sounding C (third space), the teacher asks all to sing

Too Too Too

After all have tried together several times, the teacher should walk about the room, carefully listen to each child, and quietly take note of eaeh one who does not sing the correct tone. These children need individual attention daily. Most of them will be able to match tones in a few days.

At the second lesson the class is divided into two sections "the singers" and "the listeners." (Never call a child a monotone.) The listeners are usually seated in the front seats. The singers (those who ean match tones), may proceed as follows, the others listening:

The teacher sings

Children go to and fro

At a simple signal from the teacher, the class responds, imitating the teacher, several times.

The next step is the teaching of a short, simple song. The full participation of the older boys and girls is of the greatest importanee. Therefore songs with "baby" words should be earefully avoided.

2. Teaching of Rote Songs

Presentation—Song sung through twice by the teacher. Aeeuracy of tone and rhythm; artistic interpretation; tempo generally the same as in good reading. Class sings phrase by phrase, imitating teacher. Teacher sings *for* not *with* the class.

Conducting—Before the class begins to sing, the teacher sings first phrase of song to indicate correct tempo, atmosphere, enunciation and tone quality. Indicate the hold and sometimes the rhythmic swing of the song by slight movements of the hand and arm. AVOID BEATING FOR EVERY TONE OR SYLLABLE OF THE SONG. Such "pounding out" of the rhythm is exceeding objectionable.

The pupil should form the following habits in singing songs:

Book lifted but resting on desk
Singing always with flexible lips, jaw and tongue, with teeth apart, and light head tone.

3. Teaching Song with the Phonograph

Place the title and words of the song on the blackboard; play the record through once or twice. The teacher or a pupil may follow the words with a pointer as the record is being played. Difficult parts may be repeated or the song played one phrase at a time, by lifting the needle and setting it back.

The pupils in every one-teacher school should learn to sing many songs. An extensive repertoire of good songs sung with pleasing tone equality is invaluable. Ability to sing these songs has the same relation to the study of music as the ability to think and speak the mother tongue has to the study and use of English. It is invaluable preparation for all study and appreciation of music.

4. Tone Quality

All children under twelve or thirteen years of age, before the speaking voice begins to change, should sing with the light, mellow, musical, head-tone quality, which is similar to the lyric soprano voice. The compass of the songs should be approximately that of the treble staff without lines or spaces above or lines below. Careful attention should be given to pupils (usually boys) who are inclined to sing the melody an octave below the proper pitch. This practice is harmful to the voice and to the progress in singing. The child voice of the boy is quite as high as the voice of the girl.

When the speaking voice of the boy begins to change (at thirteen or fourteen years of age), the singing voice is affected in the same way. The extreme upper tones disappear and lower tones develop. Ordinarily the boy with the changing voice may continue to sing. That he sing lightly and easily is of the greatest importance.

Flexibility of jaw, tongue, lips, neck, face, and body, is the first requisite of good singing. Any stiffening and tightening of the muscles

when singing interferes instantly and seriously with proper tone production, either speaking or singing. Free and unrestricted tone production in singing is not different from free unrestricted speech, excepting that the singing tone is sustained on one pitch.

5. Preparation for Sight Singing

After three or four months' singing of rote songs when twenty or thirty songs should have been learned, the first step in tone and rhythm study may be taken, not before.

First a scale song should be learned, with the *Latin* syllables as *an additional stanza, thus:*

1. What tree is there so fair to see, So love ly as the Christmas tree?
2. What oth er hides so man y joys, On Christmas eve for girls and boys?
3. Do ti la so fa mi re do, Do re mi fa so la ti do.

The pupils should now become very familiar, collectively and individually, with the scale, descending and ascending, as represented in the above scale song.

Ear training may now follow, beginning with the simplest form. The pupil learns to distinguish—

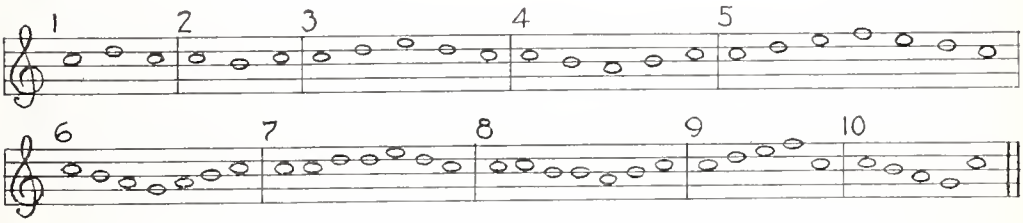
Between a high tone and a low tone.

Between the scale descending and the scale asecending.

Between do re do, and do ti do.

Simple oral dictation may now follow. See any standard Manual of Dictation (ear training).

When the class has gained facility in recognizing from hearing simple groups of tones sung to a neutral syllable or played by the teacher and can respond readily by singing the syllable names, the teacher represents the groups on the blackboard thus, as the class sings:



The teacher will then call for a group by number, give the class an instant to glance at the notes, then cover the notes. The class then

sings the tones rapidly, *as one idea.* Properly prepared by oral dictation, a class will recognize and sing these tonal groups rapidly, easily and with keen enjoyment. This is the first exercise in sight singing. The practice should be continued daily until the class can sing these and similar groups correctly, rapidly, and without hesitation.

6. Measure and Rhythm

Further development of the rhythmic sense and a conscious knowledge of measure and rhythm are also a part of the preparation for sight singing. Recognition of accent and of two-part and three-part measure is the first objective. The phonograph, rote songs, counting and beating, may be employed for this purpose. Teach the class to beat and count as follows:

With the index finger of the right hand extended and moving down and up from the wrist into the palm of the left hand, the children count "one, two," or "one, two, three" pressing down the end of the finger at the count of "one."

This practice should be repeated daily, the class beating as they listen, to distinguish between "twos" and "threes." A group of two counts or beats is called two-part (duple) measure; a group of three counts or beats is called three-part (triple) measure.

The teacher may sing a rote song in two-part or three-part measure while the class seeks to discover whether it is "in twos" or "in threes." Or a record may be played with the same objective. The class will count by twos and threes, accenting *one* in each case. Think of the accent as a motor rather than a hammer—*one* being given sufficient stress to carry over to the next accent.

a. Notes

A round, open note is called a whole note.
A round, open note with a stem is called a half note.
A closed note with a stem is called a quarter note.
How many quarter notes are equal to a whole note?
How many quarter notes are equal to a half note?

b. Measure signature

The upper figure signifies the number of beats in the measure; the lower figure, the kind of a note having one beat.

7. Rhythm Drills

Introductory.

The teacher sounds the third space C on the chromatic pitch pipe, then beats and sings with the syllable "ta," holding the tone two beats.

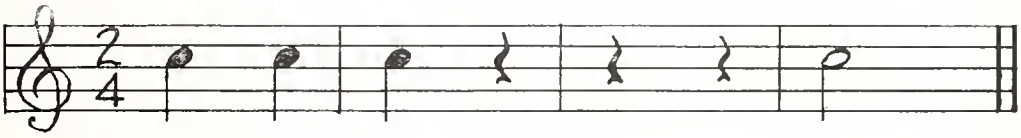
Teacher—"How many beats was the tone held?"

Class—"Two beats."

Teacher sings, holding the tone three beats, again asking the class how many beats, etc.

Then the teacher directs the class to beat and sing, holding the tone (1) two beats, (2) four beats, (3) three beats, etc., until they are able to sustain the tone any given number of beats to the number of five or six, by direction.

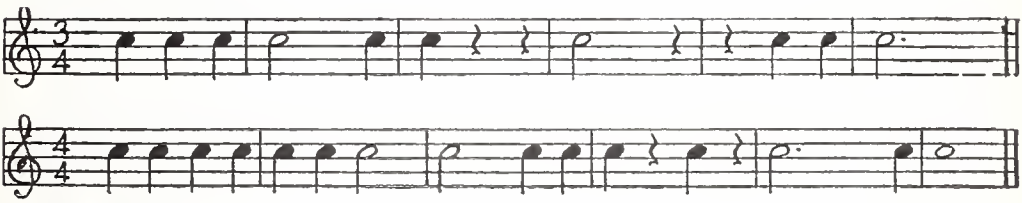
The teacher places the following on the blackboard



then sounds the third space C. While the pupils beat the measure, the teacher sings to the syllable "ta," pointing first to one measure and then another. The pupils then sing in the same manner, repeating the measure until the pointer is moved to another measure. The pointer should not be moved from note to note within the measure. The tempo may be indicated with the teacher's free hand. This practice should be continued until the class can recognize and sing correctly and freely the first rhythms to be used in the sight singing material.

Similar rhythm drills should be employed in different kinds of measure.

For example—



8. Sight Singing

As soon as the pupils gain facility in singing groups of tones from blackboard representation, and are able to do the simple rhythm

drills correctly, they are ready to begin reading from a book. Each child should be provided with a book.

The sight reading material should be exceedingly simple, both tonally and rhythmically.

The daily music lesson should include:

a. Singing of songs.

b. Individual work with the listeners while the singers have a study period.

c. Two or three minutes oral dictation—both class and individual recitation.

d. Two-minute rhythm drill.

e. Song.

9. Routine Activities

Facility in the following activities should be acquired by every classroom teacher in charge of music instruction.

a. *Quick and accurate use of chromatic pitch pipe.*

b. *Rote songs*

(1) Presentation

(2) Conducting

(a) Teacher sings first phrase of song to indicate correct tempo, atmosphere, enunciation, and tone quality.

(b) Indicate the hold and sometimes the rhythmic swing of the song by slight movements of the hand and arm; AVOID BEATING FOR EVERY TONE OR SYLLABLE OF THE SONG. Such "pounding out" of the rhythm is exceedingly objectionable.

c. *Sight singing*—Songs and studies.

Sound key tone; class sings key tone and first tone; teacher establishes the tempo by beating two measures, saying "beat, beat," etc., starting the class in the third measure, the class sustaining the first tone while beating. (Discontinue holding first tone after completion of third year work).

d. *Individual sight singing*—Two pupils standing; as one completes his singing and sits, another rises; singing to proceed without a break; class sings on signal from teacher after the second unsuccessful trial. Children are to remember their turn from day to day and rise without signal from the teacher when individual work is announced, finding the page from

lesson plan on blackboard; class to beat and be ready to sing at any time the teacher may say "Class."

e. *Dictation*

(1) Oral (combined with sight singing, blackboard).

(2) Written—drill on symbols—blackboard—music paper.

f. *Rhythm Drills*

(1) Blackboard.

(a) Without staff.

(b) Scale on staff (represent one measure).

(2) Visualization.

g. *Tone drills*

(1) Scale and interval drill (blackboard).

(2) Changing "do" exercise.

(3) Sequential studies.

h. *Correction of Errors*

(1) Stop class when tonally or rhythmically lost.

(2) Lead class to correct mistake before repeating the exercise.

In conducting the above activities, it is essential to have a minimum of talk by teacher, and a maximum of thinking and doing by pupils.

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VII. COURSE OF STUDY IN ART: DRAWING AND CONSTRUCTIVE HANDWORK

A. POINT OF VIEW

There should be provided in one-teacher schools complete educational opportunities for all pupils. Therefore, there should be provided opportunities for self-expression, that senses may be trained, skills developed, and individual interests and capacities discovered and conserved. Efforts should be made to make the schoolroom a consistently beautiful place to be in—an added attraction—another reason for really wanting to go to school.

1. The Course of Study

In the one-teacher school the course of study need not be a cold and formal one, but should be rather informal and plastic. This expression should be related primarily to other school subjects where ever and whenever possible and help to emphasize and explain them. It should likewise grow out of daily needs and problems in the school, the home, and the community.

2. Special Days

In each grade the days we celebrate should furnish opportunities for drawing, color and constructive handwork—particularly Thanksgiving, Christmas, Lincoln's and Washington's Anniversaries, St. Valentine's Day, Pennsylvania Day and Easter.

3. Constructive Handwork

This is involved in the development of all sorts of projects required in our best teaching today. These projects will call for expression in weaving, modeling, and construction in cardboard, wood and other materials; and there will be developed early skills in the handicrafts.

4. Drawing Models

Care and discrimination should be exercised in the choice of models. The vase, simple in line and form, and fine in color, serves not only as a drawing model but also an object of use and decoration on the teacher's desk. The ten cent store may supply Japanese lanterns, vases, toys and other good and inexpensive models. Such objects as the color or crayon box, watercup, and other articles upon the pupil's desk may serve as models for object drawing. It is an advantage to draw the things that are known and handled. Other models for teaching the principles of perspective may be made of cardboard, clay, etc., by the pupil. Nature materials should be used is season.

5. Reference Material

A few copies of the paper-covered drawing books on the market may be purchased and the illustrations clipped, mounted and filed, under such headings as "Nature Drawing," "Design Units," "Color Study," "Landscape," "Construction," etc. Mount for the collection well-selected samples of cretonnes, chintz, wall paper, etc. Loose-leaf collections permit the reference to be passed around or displayed before the class.

The covers and advertising pages of our magazines are likewise sources of inexpensive and valuable reference material. They contain valuable material for representation in the numerous drawings of manufactured articles in perspective. They are likewise innumerable examples of fine lettering, design, and color harmony. Advantage certainly should be taken of the beatiful color printing placed on the market as advertising matter by custom shops, paint, linoleum and wall paper manufacturers, etc., for use in teaching costume, illustration and design and interior decoration. Pupils should aid in the collecting and assembling of such material. Even limited funds need not preclude the use of this invaluable help in art education.

6. Materials for the Art Work

These should be provided and should be adequate to meet the needs. They should be selected carefully and used economically. When the materials required are not at hand use may be made of the following:

a. Wall paper samples for drawing, booklets, and some constructive handwork.

b. Common wrapping paper frequently has a tone and body that makes it desirable for crayon, poster and construction work.

c. Colored papers may be secured from the home, print shop or old magazines, and children may paint their own for cutting and pasting.

d. Paste can be made as the need arises.

e. Tempera colors may be secured by purchasing whiting, alabastine, etc., and adding water and school colors.

f. Clay is procurable in many localities for modeling and orange manicure sticks make excellent tools.

The ingenious teacher will take advantage of other waste material and use it to bring both joy and beauty into the schoolroom.

7. Exhibits

Exhibits of pupils' work offer encouragement to the pupils, and have a socializing effect in establishing closer relations between the home and the school.

B. OUTLINE OF SUBJECT MATTER BY YEARS

Note: The teacher is not expected to complete all the subjects proposed in the outline but rather to choose from the suggested material that which is best suited to the particular needs and conditions. Since the work is outlined under such heads as *Illustration, Nature Drawing, Design, Picture Study, etc.,* rather than by weeks or months, a teacher may make combinations of and selections from grades 1 to 4 inclusive or 5 to 8 inclusive. Each topic, however, should have consideration. Since the time actually secured for this work is brief, the teacher should study ways and means of distributing materials in the most economical manner. She should generally encourage free illustrative drawing while other classes are reciting. Drawings of character and events in language and history, maps and travel drawings in geography, drawings explaining mensuration and other problems in arithmetic—these vitalize and enrich all school subjects.

Nature drawing and observation out of doors, as well as home design and handicrafts should all be encouraged and will add materially towards securing more favorable time allowance, as well as increased interest on the part of both pupils in school and the parents at home. Much of this may be organized as community project work outside of school hours.

FIRST AND SECOND YEARS

1. Illustration

Encourage free spontaneous illustrations on paper and blackboard. Topics suggested by pets, games, stories, and rhymes, children of other lands, daily occupations, etc. Collect clippings to give pictures and ideas for illustrative purposes. Build up a "picture" vocabulary. Practice skeleton figures and pose pupil to suggest action where required. Be helpful and encouraging, not critical or exacting.

2. Representation and Nature Drawing

Draw, paint or cut familiar fruit and vegetable forms. Paint or cut bluebird, robin, canary, etc. Draw, paint or cut circus animals, etc. Past on blackboard to illustrate circus parade. Draw available spring flowers with colored crayons.

3. Design and Lettering

Select and arrange some of the forms suggested above for a poster and cut out simple letters for appropriate words, expressing "Eat

Fruit," "Right Food," "Care for Birds," "Be Kind to Animals," etc. Design simple rugs, curtains, etc., for doll house.

4. Color

Talk about the standard spectrum colors. Pupils collect colored papers, flowers, feathers, ribbons, etc., to illustrate each. Paint or cut simple doll dresses to represent each color.

5. Constructive Handwork

Cut, fold and paste envelope for pupils' cutting, scissors, etc. Make a simple A B C booklet. Model simple fruit, vegetable and animal forms, also dishes for doll house. Sand table projects to illustrate geography, etc.

6. Picture Study

Bring and interpret at least one fine work of art to your classes each month. The subject "Mother and Child" is suggested.

THIRD AND FOURTH YEARS

1. Illustration

The following topics are suggested for free illustration by pupils: Pioneer Life in Pennsylvania; Occupations—farm, building trades, etc; Indian, Arab, Eskimo life and other studies related to geography, reading, etc.

2. Representation and Nature Drawing

Represent the characteristic shape of common trees used for lumber—pine, oak, poplar, etc. Draw common tools used on the farm. These may be cut of paper and pasted or represented with brush in ink silhouette. Use colored crayons or cut colored papers to represent available spring and fall flowers and plant growth generally.

3. Design and Lettering

Show children some Indian designs and have children apply one of the Indian units to the decoration of a well formed bowl. Draw or cut and paste letters with suitable decorations for a poster—"Eggs for Sale," "Fresh Vegetables," etc.

4. Color

Represent different tones of one color to show different "values" of light and dark. Talk about warm and cool colors, and have pupils

bring in flowers, feathers, etc., to illustrate. Represent these with colored crayons.

5. Constructive Handwork

Develop a project to illustrate subjects like the following: Early settler's cabin—exterior and interior; local geography; child life in different lands, etc.

6. Picture Study

General subject "Children of Other Lands." Collect illustrations Relate to language and geography.

FIFTH AND SIXTH YEARS

1. Illustration

Free imaginative drawings to illustrate the work in geography, English, and history.

2. Representation and Nature Drawing

Draw common objects singly and in simple groups. Practice same on blackboard, clip and collect illustrations from magazines advertisements. Develop competition in observation and ability to draw common birds and flowers from memory.

3. Design and Lettering

Plan and develop lettering and appropriate illustration for a "Health" or "Accident Prevention" poster. Pupils clip examples of simple alphabets and pictures from magazines, for reference. Simplify some bird, flower, or animal and develop into a stencil border to be applied to curtains, table runner, or some other object for the home.

4. Color

Pupils bring in simple costume designs clipped from magazines and appropriate to pupils in this grade. Trace and color. There should be discussion of good and appropriate combinations of color for both boys and girls.

5. Constructive Handwork

Design, construct and decorate appropriately a booklet. This may be used for "Kodak" pictures, picture studies, sketches, stamps, etc. Draw, Cut and paint birds and animals for plant sticks, mechanical

toys, etc. Cigar boxes, wallboard, and even cardboard may be used. Coping saws, clamps, etc., may be secured from the "ten cent" store.

6. Picture Study

Collect illustrations of good pictures representing industry—Spinning and weaving, plowing, sowing, etc. Illustrations—Oxen Plowing—Bonheur. The Sower, the Knitting Lesson—Millet.

SEVENTH AND EIGHTH YEARS

1. Representation

Make drawings in pencil and crayon of interesting objects both cylindrical and rectilinear. Draw same objects from memory. Sketch scenes from school window and local street scenes. Discuss principles of parallel and angular perspective. Pupils collect illustrations from advertising pages of magazines for reference. Draw some attractive vase and flowers or potted plant with colored crayons on tinted wrapping paper.

2. Design

Pupils collect illustrations of well-designed things for the home. Talk about fitness and appropriateness in design for vases, rugs, curtains, chairs, dishes, etc. Pupils make designs for vases, dishes, lamps, etc. Pupils make floor plans and wall plans of own room and show how we design when we arrange furniture on the floor or pictures on a wall. Collect illustrations for reference.

3. Color

Explain how harmony of color may be secured. Pupils collect color notes from nature to illustrate different harmonies. Apply the lesson learned in a consideration of—

a. Color applied to dress.
b. Color applied to home interiors.
c. Color applied to home exteriors.

Cut and paste colored papers to represent the front of the school buildings and homes, showing how building and grounds might be improved with paint and flowers and shrubbery.

4. Art Appreciation

Pupils collect pictures of beautiful buildings, monuments, parks, playgrounds, etc. Discussions should develop interest in and knowledge of styles of architecture, scenic attractions, travel, civic beauty, and citizenship.

C. SUGGESTED SUBJECTS FOR PICTURE STUDY AND SCHOOL ROOM DECORATION

1. Picture for C and D Classes

Raphael—Madonna of the Chair
Renouf—Helping Hand
Israels—Interior of a Cottage
Millet—Feeding Her Birds
Kever—Sewing School
Landseer—Dignity and Impudence
Landseer—Shoeing the Bay Mare
Curran—Children Catching Minnows
Stuart—Washington (Athenaeum)
Breton—Song of the Lark
Pearson—Geese
Potthast—The Holiday
Thayer—Caritas
Corot—Dance of the Nymphs
Adams—Cat and Kittens
Millet—Feeding the Hens
Murillo—Divine Shepherd
Van Dyck—Children of Charles I
Reynolds—Age of Innocence
Dupré—In the Pasture
Bonheur—Horse Fair

Albright—Little Sister
Albright—End of the Pier
Raeburn—A Boy with a Rabbit
Borglum—Lincoln

2. Pictures for A and B Classes

Bonheur—Deer in Forest
Lerolle—By the River
Mauve—Spring
Homer—Fog Warning
Millet—Gleaners
Adan—The End of Day
Vischer—King Arthur
Bonheur—Plowing
Alexander—Pot of Basil
Alexander—Evolution of the Book (Series of six)
Inness—Peace and Plenty
Metcalf—Ice-bound
Trumbull—Signing the Declaration
Millet—The Sower
Dupré—Balloon
Troyon—Return to the Farm
Boughton—Pilgrims Going to Church
Ruysdael—Landscape with Windmill
Hitchcock—Flower Girl
Corot—Lake
Whistler—Portrait of Mother
Couse—Landscape with Sheep
Dougherty—Storm Quiet
Gainsborough—The Blue Boy

Martin—A View of the Seine River
Photo—Stratford-on-Avon
Photo—Independence Hall

3. Sources of Material

a. Among the publishers of Picture Study Outlines and Leaflets are the following:

Art Extension Society, Westport, Connecticut.
F. A. Owen Company, Dansville, New York.
Brown-Robertson Company, 424 Madison Ave., New York City.
Elson Art Publication Company, Belmont, Massachusetts.
University Prints Company, Newton, Massachusetts.
The Perry Pictures, Malden, Massachusetts.

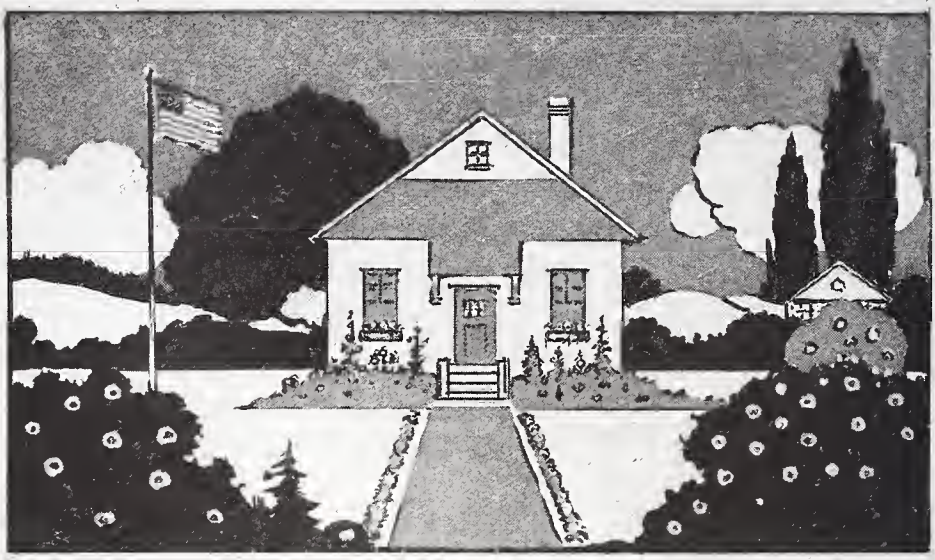
b. Among the publishers of Prints suitable for schoolroom decoration are the following:

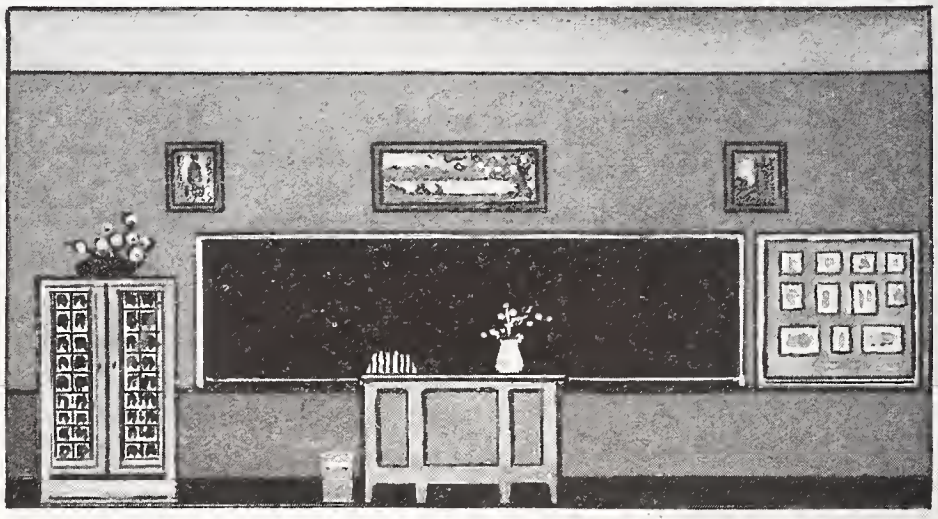
Brown-Robertson Company, 424 Madison Ave., New York City.
Elson Art Publication Company, Belmont, Massachusetts.
Curtis and Cameron Company, Boston, Massachusetts.
United States Printing and Lithographing Company, 6 East 39th St., New York City.
Rudolph Lesch, 225 Fifth Avenue, New York City.

c. Among the books related to the study of pictures are the following:

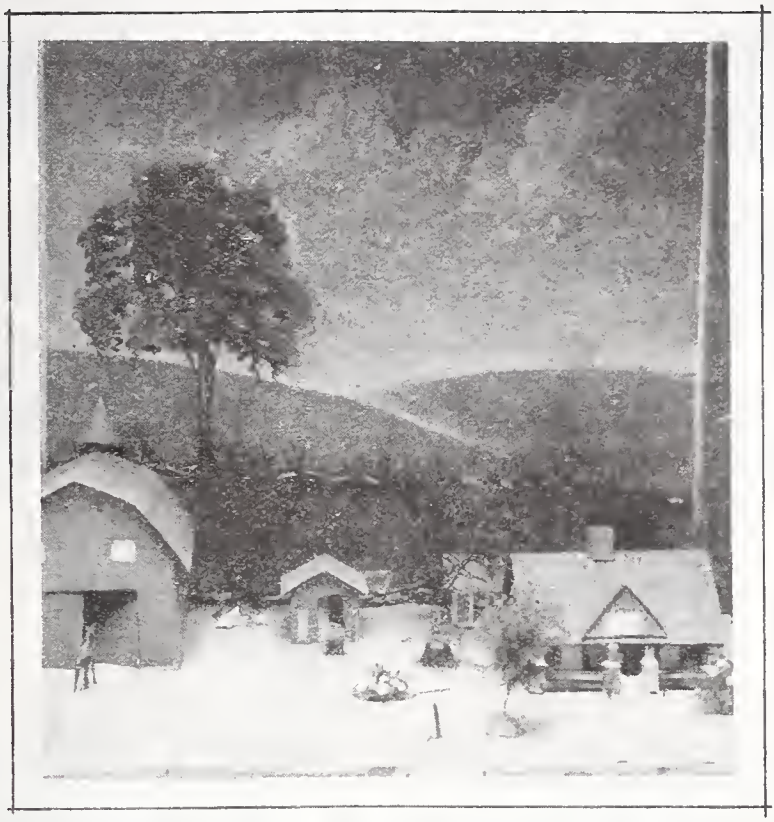
Barstow—Famous Pictures—Century
Hurll—How to Show Pictures to Children—Houghton
Caffin—How to Study Pictures—Century
Van Dyke—The Meaning of Pictures—Scribners
Bailey—Twelve Great Paintings—Prang
Bacon—Pictures Every Child Should Know—Grosset
Witt—How to Look at Pictures—Macmillan
Carpenter—Stories Pictures Tell—Rand McNally
Olive—First Steps in the Enjoyment of Pictures—Holt
Lester—Great Pictures and Their Stories—Mentzer Bush

The Director of Art of the Department of Public Instruction will gladly assist those who are interested in securing information relative to prints appropriate for schoolroom decoration and their publishers. Advice will also be given as to color schemes for school walls.





Above-A project to beautify School Grounds
: Planned with colored papers and developed as a practical Arbor Day enterprise...
Below-A neat-orderly-attractive Schoolroom.



ABOVE—The farm as a "sand table" project. Farm animals made in clay. Buildings in cardboard. Appropriate background drawn upon the blackboard, BELOW—The life of the Pilgrim settlers.

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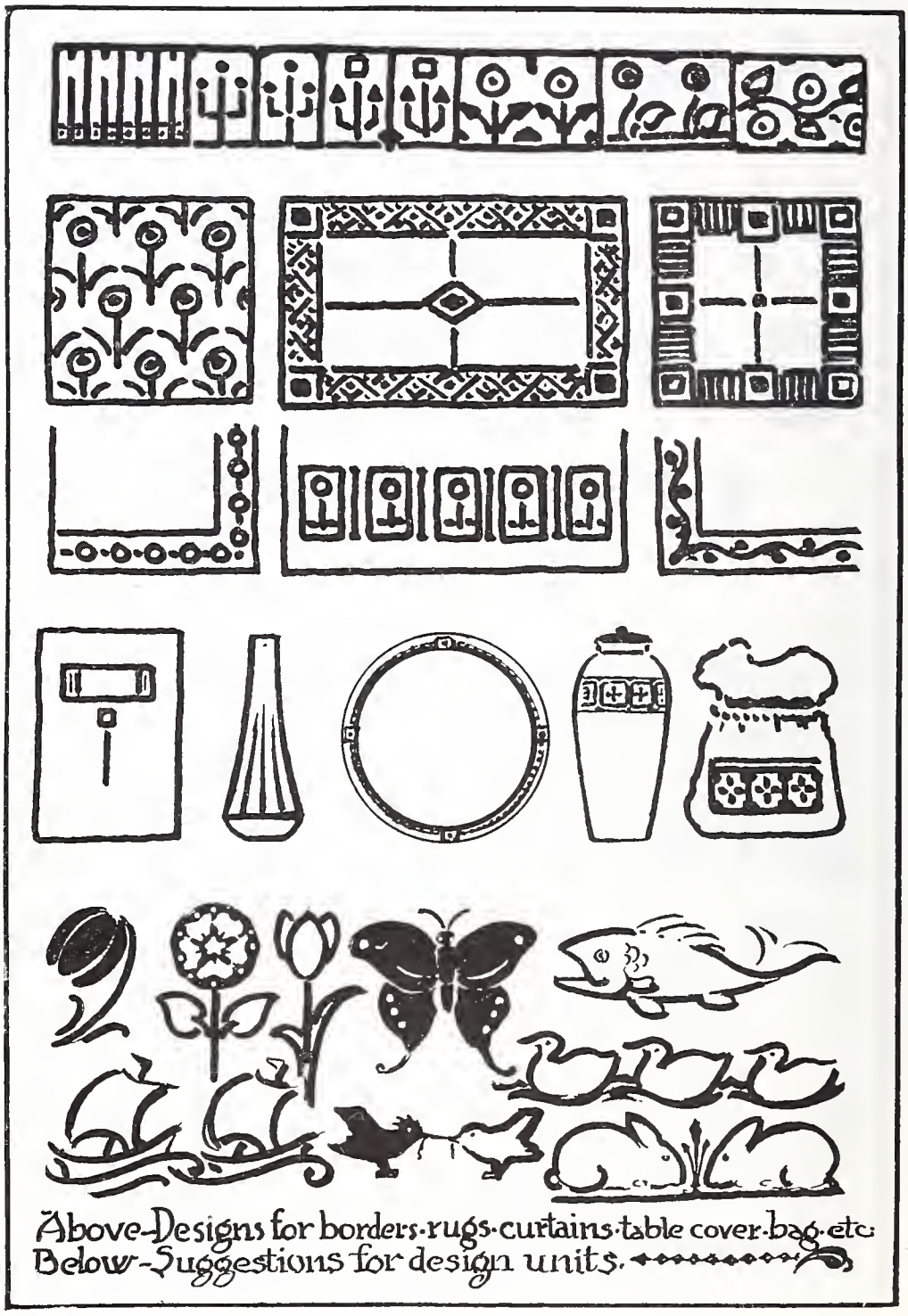
Currant Jelly.

DAIRY FARM

MY GARDEN BOOK

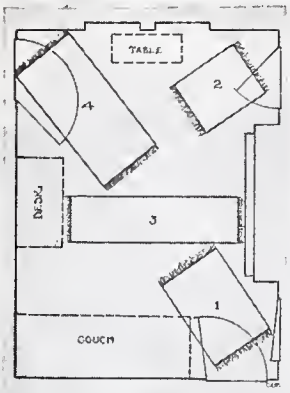
Mr. W. A. Saul.
Harrisburg
Penna.

ABCDEFG
HIJKLMN
OPQRSTU
VWXYZ
EAT MORE FRUIT
FRESH
EGGS
FOR SALE
RIGHT
FOOD
CLEAN
BODIES
POSTER LETTERS

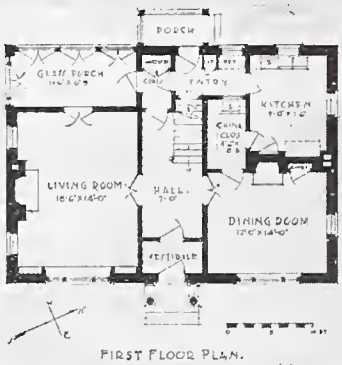


Above-Designs for borders·rugs·curtains·table cover·bag·etc:
Below-Suggestions for design units.

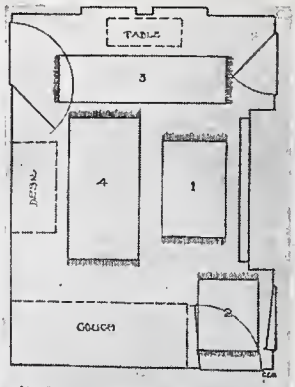
SUNSET
FARM



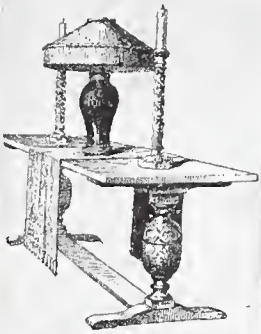
Number 1. Diagram showing poor arrangement of rugs.

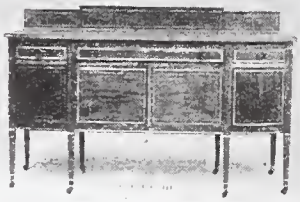


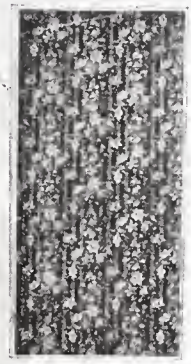
FIRST FLOOR PLAN.

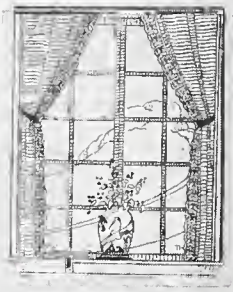


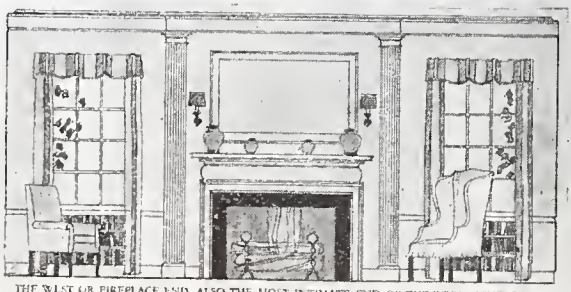
Number 2. Improved arrangement of the same rugs.











THE WEST OR FIREPLACE END, ALSO THE MOST INTIMATE END OF THE ROOM, WHERE THE FAMILY MAY ENJOY THE FIRE AND A BOOK

Illustrations collected by pupils to show good selections for use in the home—

A striking illustration of what well planned landscape gardening may do in beautifying the exterior of our school buildings.

VIII. COURSE OF STUDY IN NATURE: INCLUDING AGRICULTURE

A. POINT OF VIEW

1. Purpose

Nature study is the subject in the elementary schools through which the child may start to better adjust himself to his environment. It must begin when the child first meets life and help him to work out a relationship to such life. He needs to locate himself in regard to plants and animals as they are presented through the changing of the seasons. In short, the child must learn to understand life as he naturally comes in contact with it.

But nature study must lead to more than a knowledge of life as it is found in the local district; it must arouse a general interest in the world about us and develop a spirit of inquiry and appreciation in relation to the beauty and meaning of wild life and natural forces. The aesthetic value must not be lost in the utilitarian benefits that may result from a study of such life and natural forces as they are related to the comforts of people. There should result a sympathetic appreciation as well as an understanding of nature. The Indian's attitude of regarding all wild life as akin to himself expresses in an extreme degree one of the underlying aims in the study of nature by children. What has been done in the last dozen years in connection with the preservation of birds and wild flowers is a good illustration of this point.

2. Scope

A detailed course of study is not always practical. The teacher must arrange in a useable way the nature material that is available in the district where she is teaching. In practically every district this available material will deal with animal life as it is found on land and in the water, with plant life on land, with observations of the weather, the sun and the stars, and with experiments of a mechanical nature. A few topics such as the trees of the neighborhood, the human value of birds, and the germination of seeds, that are possible of study in every neighborhood, should be given sufficient attention.

B. SUGGESTED METHODS

1. Principles

The work in nature study should be kept as simple as possible. Technical terms should not be used when common terms are available. The method of presentation should be such as to keep at a high pitch

the interest of the children in what they are doing; otherwise the work will be of little value. It will not be practical to give more than a few minutes to this subject out of the regular program for the day's work. Much of what is done must be done by the children, together with the teacher, outside of regular school hours.

It must be kept in mind that the pleasurable pursuit of the interesting things in nature should result in a keenness of the child's senses that can be induced in no other way. This principle of contact by which objects are carefully handled and examined by the child should be constantly stressed. If after such examination he is capable of expressing his ideas with chalk, with crayon, or by clay modeling or paper cutting, the child should be urged to do so. The construction of charts by the teacher and children in cooperation—such as seed charts, bird charts, and leaf charts—will be of great help in making the work real.

It is a mistake to attempt any note book work lower than the two upper classes. These classes are also capable of improvising much of the apparatus that will be needed in making studies such as that of seed germination.

2. Correlation

The correlation of nature study with the other branches should be emphasized. The materials used can be effectively employed in the composition work, in the art and handwork, in geography, and to some extent in civics. It should be always kept in mind that the main purpose of nature study, that of getting acquainted with nature herself, should not be lost through an emphasis on composition, art, or any other correlated subjects.

3. Results

The best results of nature study are rather intangible. The results cannot be evaluated on the basis of ground covered or facts acquired. The work should develop a sympathetic attitude toward wild life, should improve the humane impulses of the child, and should bring about something of responsibility and interest in caring for plants and animals and in adjusting himself to the natural situation in which he happens to be placed.

C. OUTLINE OF SUBJECT MATTER BY YEARS

Note: The work in nature study for the D class is to be closely correlated with language and art. The time should be taken from English. The first and second years recite together.

FIRST AND SECOND YEARS

1. Getting Acquainted with Some of the Common Flowers

a. What kinds of flowers do you have growing at home?

b. What common wild flowers do you know? Where do you find them growing?

c. What different colors do you find among the flowers you know?

d. From what does each kind grow? Bulb, seed, or root?

e. In the fall plant bulbs, so as to have flowers for Thanksgiving day and the Christmas holidays for schoolroom and home decoration: Chinese lily, paper-white narcissus, Dutch hyacinth, white Roman hyacinth, and daffodils.

f. Learn to know the following or other familiar flowers of your locality: Jack-in-the-pulpit, golden-rod, dandelion, butter-cup, oxeye daisy.

g. Make drawings of flowers collected. Use colored crayons, also make paper cuttings. Practice on blackboard.

h. Drawings of opening buds as the pussy-willow. Illustrate "Maple sugar making." Mount wild flowers and leaves and paint color notes to represent the different colors in each.

i. Make booklet to contain mounted specimens, drawings, and color notes of fall nature material studied.

j. Draw or cut flower pot shape and some schoolroom plant.

k. Design and make a "Spring" booklet. Mount illustrations.

2. Trees of the Neighborhood

a. Select a tree near the school and notice the changes that occur in it during the year.

b. Get acquainted with some of the different kinds of trees that you pass every day on your way to school. Learn their names and be able to recognize them whenever and wherever you see them. When you pass them call them by their proper names as you would a friend. The following are suggested: Maple, elm, oak, and pine.

c. What do the trees do for us?

d. How can you tell a pine tree from an oak?

e. Collect several different kinds of leaves. Note how they differ in size and color. Trace on paper with a pencil the outlines of two or three leaves; color with crayon. Make outline drawing of shape of a whole tree.

f. Study opening buds on trees in the spring; bring pussy-willow twigs into the classroom and let them open in a vase of water. Make outline drawing and color.

g. Cut paper silhouettes of characteristic tree shapes. Make booklet, "Trees I Know," containing mounted leaves and paper cuttings.

h. Draw tree buds and arrange in a border or "all over" design for a booklet cover.

3. Fruits and Vegetables

a. Bring different kinds to school; note varying colors and shapes; discuss uses.

b. On what kind of plant does each kind grow?

c. Draw, paint, cut, and model fruit and vegetable forms.

d. Model fruits, nuts, vegetables. Draw seeds, bulbs.

4. Our Animal Friends

a. Learn to know two or three familiar birds, such as the robin, English sparrow, bluebird.

b. What do the birds that you know, eat?

c. How can we protect the birds that stay with us during the winter and make them more comfortable?

d. Draw birds on blackboard from egg shapes.

e. Paint or cut bird shapes and mount on poster. Cut and paste appropriate lettering—"Bird Friends."

f. What are your favorite animal pets? What do they like to do? What do they eat?

g. How does a hen care for her chickens?

h. Free illustrative drawings of pets.

i. Free illustrations of stories about dogs.

5. Some General Outdoor Observations

a. What becomes of the rain as it falls?

b. What do we mean by a sunny day? Cloudy? Windy? Foggy?

c. Keep a weather record for one month, say November, indicating by means of symbols the general character of the weather on each day..

d. When are the days longest? Shortest?

e. What are the signs of returning Spring? Winter?

f. How do the wild animals that you know prepare for the winter?

g. Illustrate with crayons *"A Rainy Day," "March Winds."*

h. Cut and paste or paint a winter landscape.

THIRD AND FOURTH YEARS

Note: The work for the C class is to be coordinated with geography. The time is to be divided as needed between the two subjects. Much of the material here given is subject matter for composition in English.

Much of nature study is "seasonal" and has to be done when the material is available. The planning should be done in advance.

1. **Animals that Furnish Us with Food:** Cow, Pig, Sheep, Chicken.
   a. How does the cow serve us?
   b. Find out different cuts of beef.
   c. Milk products: butter and cheese.
   d. Cut out pictures of well known breeds of beef and milch cows.
   e. Principle food; arrangement of teeth; compound stomach.
   f. Care of the milch cow to insure proper supply of clean, pure milk.
   g. A few general observations; such as sense of hearing, smell, toes, hoof; parts on a cow's leg that correspond to our elbow, wrist, knee and ankle.

2. **Animals that Help Us Do Our Work:** The Horse, Camel, Reindeer.

3. **Animals that Play with Us:** Dog, Cat, and Other Pets.

4. **Wild Animals We All Know:** Squirrel, Rabbit, and Other Animals that Gnaw (Rodents).

5. **How We Measure the Warmth of Our Rooms:**
   a. Study thermometer.
   b. Keep record temperature readings, warmth inside and warmth outside, taking readings three or four times a day for a week. Instruct pupils to report, during period of artificial heating, any temperature readings above or below the normal (68°).
   c. How may we keep the air in our rooms pure?

6. **Animals that Sleep All Winter:** Woodchuck, Toad, Reptiles.

7. **Animals that put on Increasingly Heavy Furry Coats During Cold Weather:** Beaver, Muskrat, Raccoon, Seal.

8. **General Outdoor Observations**
   a. Continue observations of weather and sky as time and opportunity permit and suggest.
   b. Encourage members of class to add constantly to the list of the animals, trees, and flowers of their locality which they know and daily enjoy as loyal, helpful friends.

9. **What Do the Birds Do in the World?**
   a. Help protect the crops of the world.
   b. Help feed the people of the world.
   c. Give pleasure by their sweet songs, beautiful plumage, and cheery companionship.

10. What are the Enemies that Threaten to Destroy Our Native, Helpful Species?

a. Climatic influences.
b. Destruction of natural shelter and food supplies.
c. Cats.
d. English sparrows.
e. Thoughtless boys and girls.
f. Hunters that are not true sportsmen.

11. What Can We Do to Protect and Attract the Birds?

a. Provide the essentials of a happy, contented bird life: water, food, home, security.
b. Locate in your neighborhood the natural places suitable for birds to drink and bathe. Provide additional artificial places as needed.
c. Learn where the migratory birds spend the winter.
d. Observe and report suitable nesting places provided by nature for the birds of your district. Make additional shrubs and trees suitable to provide additional natural nesting places.
e. Learn how to feed and tame birds, particularly in winter.
f. Restrain cats and thoughtless children from disturbing birds or their nests.
g. Investigate the habits of English sparrow and determine whether he is a friend or foe of the other birds. Should he be encouraged and protected?
h. Know, obey and help to enforce local, State and Federal protection laws and measures.
i. Organize your class for bird protection into a Junior Audubon Club.

FIFTH AND SIXTH YEARS

Note: The work for the B class should be planned in connection with planning the geography for this class. Practically all of the work herein indicated must be taken up in the Spring season and should receive emphasis at that time. Much of it can be done outside of school hours.

1. Suggestive List of Practical Projects

a. Germinate and test seeds.
b. Study seed catalogs.
c. Purchase seed.
d. Raise annuals from seeds planted in open.
e. Raise annuals from seeds planted indoors, and transplant to open.
f. Raise perennials from seed and transplant to permanent positions.

g. Make a garden booklet.
h. Raise flowers from bulbs outdoors and in pots indoors.
i. Prepare and care for a window garden.
j. Make and use cold frames and hot beds.
k. Properly use and care for tools.
l. Prepare the garden soil for planting.
m. Lay out and plant a plot garden, one square rod.
n. Cultivate garden throughout the season.
o. Plant inter-crops and succession crops.
p. Use fertilizers.
q. Combat garden foes; insects, plant diseases, weeds.
r. Prepare a garden plan to scale.
s. Grow in the home garden, enough of certain vegetables to supply the family.
t. Propagate plants by cutting, layering and grafting.
u. Floriculture—Produce a season's succession of flowers, growing at least five annuals and five perennials.
v. Shrubbery—Make attractive planting of shrubbery in some needed place.
w. Landscaping—Plant the home grounds with emphasis on maximum production and beauty of effect.
x. Guidance—Study gardening and horticultural occupations.
y. Forestry—Plant and care for a number of trees or a woodlot.

2. **The First Five Projects Are Given Below in Some Detail in Order to Suggest Method of Developing the Other Projects in the List.**

a. *Germinate Seeds*

(1) *Materials:* corn, wheat, or bean seeds; hollow egg shells (cup shape) or shallow wooden boxes with good garden soil; or glass fish bowl with cocoanut fiber or sphagnum moss; pane of glass.

(2) *Method:* plant seeds in damp soil or moist fiber, cover with pane of glass or piece of paper to retain moisture, and set in sunlight. From time to time remove several sprouting grains and observe growth.

(3) *Problems:*

(a) What conditions are necessary to cause the seeds to sprout?

(b) In what material shall we grow the seeds?

(c) What do we find is contained in seeds?

(d) How does the young tender plant grow? What are its parts?

(e) How deep in the soil should seeds be planted to grow well?

b. *Study Seed Catalogs*

(1) *Materials:* A variety of catalogs ordered by the children from various seed houses. Material from Children's Flower Mission, 5700 Detroit Avenue, Cleveland, Ohio.

(2) *Method:* Use catalogs for supplementary reading, for cut-outs and information about plants.

(3) *Problems:*

(a) Where and how shall we obtain seed catalogs?

(b) What valuable information can we obtain from these catalogs?

(c) What is a variety, and how do varieties of lettuce differ?

(d) Which are the leafy vegetables? The root vegetable? The vine crops?

c. *Purchase Seed*

(1) *Materials:* order blanks, seed catalogs.

(2) *Methods:* Only reliable seed should be purchased, and of best varieties, for "like produces like." Discuss with class the best varieties of each kind they desire to purchase.

(3) *Problems:*

(a) When and where shall we buy our seeds? Why?

(b) Why it is important to get the best varieties.

(c) What vegetables and flowers will we raise?

(d) What kind of seed and how much of each do we want?

d. *Raise Annuals From Seeds Planted in Open*

(1) *Materials:* Seeds, hoe, stakes and lines.

(2) *Method:* Mark row with line, dig shallow trench with hoe; drop seeds proper distance apart; cover with soil and pack firmly. Cultivate as needed from time to time and harvest when ready.

(3) *Problems:*

(a) Why and how shall we have our rows straight?

(b) How wide and how deep shall the trench be?

(c) How shall we distribute the seed evenly in the trench?

(d) How shall we cover the seed to insure early germination?

(e) What care will young plants require when just breaking through the soil?

(f) How shall we care for these crops until harvesting?

e. *Raise Annuals From Seed Planted Indoors, and Transplant to Open.*

(1) *Materials:* seeds, shallow boxes (flats) about three inches deep, rich garden soil, sand, pots, line and trowel.

(2) *Method:* Mix the soil using two-thirds garden soil and one-third sand; put three inches of this soil in the boxes; sow such seed as lettuce, cabbage, tomato, aster and pansy thickly and to proper depth; later when seedlings are several inches high, transplant to garden rows, making holes for plants with trowel or dribbler; cultivate and harvest.

(3) *Problems:*

(a) How shall we prepare the boxes or flats for sowing the seeds?

(b) When and how shall we sow the seeds?

(c) What care shall we give the box after sowing the seeds?

(d) When and how shall we transplant the little seedlings to larger boxes?

(e) What care will the seedlings require before transplanting outdoors?

(f) When and how is transplanting best done?

3. **Additional Activities and Studies**

a. Make exhibit of garden products.

b. Clean up the garden, home and school, getting ready for spring planting.

c. *Why Garden?*

(1) How can we help to produce food for our own homes?

(2) What can we do to improve the appearance of our homes?

(3) How does working in the garden improve our health?

(4) Why are the fresh vegetables from our garden the best food for us?

d. *Studying Growing Plants*

(1) Note the different appearances of various young plants when the first leaves show.
(2) What are the parts of the plant and what are their purposes?
(3) How does a plant breathe, feed, grow, reproduce?
(4) What is the chlorophyll and what is its work?

e. *Increasing the Plant Food in the Garden*

(1) What kinds of plant food are found in the soil?
(2) How can the several elements of plant food be added to the soil?
(3) What commercial fertilizers shall we use?
(4) What forms of manure shall we use and when?
(5) Shall lime be used on the garden? How much?

f. *Maintaining Moisture Supply for Plants*

(1) Where does the soil moisture come from?
(2) What becomes of the surplus moisture?
(3) When does the soil moisture move up and when down?
(4) Why is this?
(5) How is the moisture retained in the soil by a mulch?
(6) How can a mulch be kept on the garden?
(7) When should the garden be watered, and how?

g. *Raising Young Plants*

(1) What plants can readily be raised for transplanting?
(2) How are hot-beds and cold-frames constructed?
(3) Where should they be located?
(4) How can young plants be raised in hot-beds? Cold-frames?
(5) How can young plants be raised in boxes in the school-room?
(6) When should these plants be planted in the gardens?
(7) How is transplanting done?

h. *Beautifying the Home*

(1) Where should flower beds be located?
(2) What flowers should be grown in these beds?
(3) What other flowers can we have?
(4) What shrubs should be planted at base of building and along walks?

(5) What care will the shrubbery require?
(6) How is a good lawn made and cared for?
(7) Should we have trees at home?
(8) What trees would be best?
(9) When and how should trees be planted?
(10) What care will they require?

i. *Destroying Garden Pests*

(1) What are the common insects attacking our gardens?
(2) What are the various life stages of insects?
(3) How can we destroy the various insects?
(4) What help do the birds give us in destroying harmful insects?
(5) What help do toads give and how shall we treat them? Snakes?
(6) What diseases may attack our gardens?
(7) How shall we avoid plant diseases in our garden?

j *Method of Seed Dispersal*

SEVENTH AND EIGHTH YEARS

Note: The following outline of fifteen problems bearing on agriculture is to be used in the odd years as a substitute for a half-year's work in geography.

1. How to Become Acquainted with Trees

a. The class and teacher should select a small group of representative Pennsylvania trees common to the district in which the school is located. Learn to know these well.

b. Each pupil should begin an individual tree book called by some appropriate title, in which he will place such items as the following, as he makes two studies of individual trees. A plan for developing such a book is as follows:

Art cover (cut-out or drawing)
Best individual stories
Original drawings and photographs
Tree survey of neighborhood, giving for each tree:
- Cut-out or drawing of whole tree.
- Cut-out or drawing of characteristic parts.
- Favorite haunt.
- Products and uses.
- Further local development.

Reference: Guide to Forestry, Bulletin 26, Pennsylvania Department of Forests and Waters.

c. The best of these drawings and reports after class consideration should be honored by inclusion in the School Tree Book.

2. The Life of a Tree

a. The parts of a tree and function of each: roots, trunk, crown.

b. Its food and how it gets it.

c. How a tree breathes: constituents of respiration; of transpiration.

d. How a tree grows: annual rings; varying requirements for heat, moisture and light; rate of growth.

e. The Seven Ages of a Tree; seedling, small sapling, large sapling, small pole, large pole, standard, veteran.

3. Planting Trees

a. *Why Plant Trees*

(1) For beautification and shade

(2) To check soil erosion and wastage

(3) For commercial purposes: nut and fruit

b. *Where Plant Trees*

(1) Waste or idle lands

(2) Farm and home

(3) Existing woodlands

c. *What Trees to Plant and How to Plant Them*

(1) Consult local nurseryman

(2) Write Pennsylvania Department of Forests and Waters, Harrisburg, telling why and where you propose to plant them.

4. How Forests Affect the Weather and the Streams

a. Forest cover cools the air by absorbing heat from the air, by evaporation of water from the leaves.

b. The tree in the manufacturing of its food out of materials received through its roots and leaves requires heat. This it gets from the air, cooling it still further.

c. The forest floor acts as a sponge to hold the rainfall and to release it gradually, thus preventing freshets and floods.

5. Nuts and Nut Trees

a. Kinds of nuts common to Pennsylvania, especially hickory, shell-bark, black walnut, butternut, chestnut, and others.

b. *Value of Nut Trees*

(1) For nuts produced
(2) For lumber
(3) As compared with other forest trees

c. References

"Pennsylvania Trees"—J. S. Illick, free from Pennsylvania Department of Forests and Waters, Harrisburg, Pennsylvania.

6. **The Woods**

a. Crops from the woods—nuts, furs, lumber
b. Lumber—kinds, cutting, care of woods
c. Winter work in the farm woods
d. Problems
(1) What do we get from the woods on our farms?
(2) What kinds of trees are growing in the home wood lot, and for what is each kind useful?
(3) What kind of wood should be cut for fuel each winter?
e. References. Farmer's Bulletin, No. 1117, U. S. Bureau of Agriculture.

7. **Corn Study**

a. Structure of corn plants, parts and purposes of parts Relation of corn to other grasses
b. Cutting and husking corn—cutting corn, by hand and by machine; machine used. Shocking corn, methods, reasons, changes in the shock. Husking; methods, tools used now and formerly
c. Storing corn over winter; corn crops; seed corn, prevent freezing avoid mice; method of stringing corn
d. Corn for the silo
e. *Problems*
(1) How is corn cutting and husking done in other parts of the state? (write to pupils there and inquire.)
(2) What kind of machines are used for cutting and husking corn?
(3) Should every farmer have a corn binder?
(4) Do our fathers handle the seed corn properly over winter?
(5) What is the corn variety test conducted by the County Farm Bureau?

Reference: Farmer's Bulletin, No. 537, U. S. Bureau of Agriculture.

8. **Fruits**

a. Common fruits on the farm

b. Varieties of apples, identification methods

(1) Perfect and imperfect apples; methods of preventing imperfect fruit. Pupils will bring apples from home and study varieties and conditions.

c. *Problems*

(1) What fruit should be grown on every farm?

(2) Which are the early and which the late varieties of apples?

(3) How do varieties of apples differ in flavor, texture, keeping qualities? What are the best varieties?

(4) What care and attention does an orchard require during the year?

9. **Bees**

a. Value of bees: their importance to farmer, importance to flowers and fruits; their house or hive, care necessary, the making of honey.

b. Have pupils report on experiences they have had with swarms of bees, locating bee trees, how to prevent stinging.

(1) Make bee booklets.

c. *Problems*

(1) What are the names of the different kinds of bees in a colony?

(2) What is meant by "swarming?"

(3) How much honey can be taken from a hive in a year?

(4) How can you locate a bee tree?

d. References: Farmers' Bulletin, No. 1198, U. S. Bureau of Agriculture.

10. **Fur-Bearing Animals**

a. Kinds of fur-bearing animals common to Pennsylvania, as mink, weasel, muskrat, skunk, opossum, raccoon, fox, rabbit, squirrel. Their habits and characteristics.

b. Activities—Have pupils report on methods of capturing, preparing pelts, selling values, laws relating to trapping, bounties.

c. *Problems*

(1) What is a marsupial mammal?

(2) Which animals hibernate in winter?

(3) Do you know of anyone who has a "fur farm"?

11. Birds and the Farmer

a. Know common birds; feeding habits, nesting habits, value to farmer, how to protect, how to encourage.

b. Activities—Make bird houses.

c. *Problems*

(1) What birds are protected by law? Why?

(2) What birds are not protected by law? Why?

(3) What is a "bird preserve?"

12. Farm Stock Census

a. Number and kinds of stock on pupil's home farm and in community.

b. Activities—Have pupils prepare census forms for use. Have each pupil make a census of animals on home farm. Tabulate and have complete census of community. Make a stock map of the community.

c. *Problems*

(1) Has a census ever been made of the stock on your farm before?

(2) By whom made What was included that you did not include?

13. Rope Work

a. Uses of rope on the farm.

b. Construction and kinds of rope.

c. Practice for pupils.

(1) Making knots. Each pupil master at least the following knots: square, bowline, miller's, weaver's slip and binder knots; double half hitch, timber hitch and clove hitch; whipping.

(2) Making splices: short splice, eye splice, crown and end splice.

d. *Problems*

(1) How is a bowline knot made and used?

(2) How can two pieces of rope be spliced together?

14. Map of School District and the Home Farm

a. *Making a Map*

(1) Showing buildings, roads, fields, woods, streams.

(2) Drawing map to scale.

(3) Laying off the farm on paper, showing measurements.

b. *Using Map*

(1) Suggest changes for improved layout of the farm home.

c. *Problems*

(1) How are maps made?

(2) How shall we make maps of our homes?

(3) What improvements would we suggest in the arrangement of our farms?

15. Machines on the Farm

a. *Winter Attention Required*

(1) Clean and oil implements and machinery.

(2) Repair and replace parts.

(3) Store and house for winter.

b. *Activities for Pupils*

(1) Make an inventory of farm implements at their homes. State kind of implements, number, probable value; repairs needed, how stored.

(2) Each pupil to get some practice in cleaning and repairing implements for winter storage; pupils to report on work they do.

(3) Make farm machinery booklet.

c. *Problems*

(1) How is a grain binder put in condition for winter storage?

(2) How is a new handle fitted on a hay fork?

(3) How are new teeth put on mower blades?

PART THREE

PROJECT WORK IN HOMEMAKING ACTIVITIES

PART THREE: PROJECT WORK IN HOMEMAKING ACTIVITIES

A. BASIC NEEDS OF THE HOME

The home is one of the recognized fundamental institutions around which people build their lives. It has been said that as the home is, so is the community and the state. A noted man made this statement—"Commonwealths are built on family virtues." If these statements are true, we cannot start too early in training children to develop such virtues as will grow into attributes which will build happy homes. In the school, the teacher will wish to build upon the good habits developed by the parents in the home. This can be done by planning for activities which will stimulate and develop aptitudes leading to an appreciation of satisfying home life. These activities should be planned for boys and girls working together since the success of the home depends upon the cooperation of all members of the family.

The basic needs of the family are food, clothing, and shelter. Activities in the lower grades in school should, therefore, be centered around these daily needs. The projects selected should be suited to the age and ability of the children.

B. SUGGESTED PROJECTS

The following suggestive projects indicate the type of activities centering around the home and home life which may well be carried on in one-teacher elementary schools. Some of these activities may be carried out as a part of the regular school program either as individual or group projects. In some cases the activity may take the form of a demonstration by either the teacher or the pupils. Some of the activities can best be carried on in the home of the pupils. Where this is done, instruction for the home activity should be given by the teacher and the pupil should prepare a written report of the home project.

1. **Building and care of fires**—(1) building the fire, (2) keeping it during the day, (3) fixing it for the night, (4) removal and care of ashes, (5) care and cleaning of the stove, (6) cutting wood for kindling.
2. **Cleaning**—Care and cleaning of (1) floors, (2) windows, (3) furniture, (4) blackboards and erasers.
3. **Repairing**—(1) door knobs and latches, (2) broken hinges, (3) replacing broken window panes, (4) putting up clothes hooks.

4. **Painting of furniture**—(1) teacher's desk and chair, (2) book shelves, (3) own bedroom furniture, (4) porch furniture.

5. **House care**—(1) care of own bedroom—daily cleaning and tidying of clothing and furniture, weekly cleaning of floors, windows, closets, dresser drawers, etc., (2) care of porch and porch furniture.

6. **Simple sewing activities**—(1) making curtains for own bedroom, school cupboard or shelves, (2) making pot holders, (3) hemming tea towels and dish cloths, (4) darning and mending, (5) making a simple garment.

7. **Simple food projects**—(1) the school lunch, (2) food study in relation to health, (3) setting the table, (4) helping to serve the meal, (5) preparation of simple dishes for the school lunch, (6) preparation of simple dishes for the family meals.

8. **Flower gardening**—(1) for school ground, (2) for home yard.

9. **Household pests**—Exterminating (1) flies, (2) cock roaches, (3) ants, (4) mice, etc.

In those counties having the services of county supervisors of home economics, the elementary school teacher in the rural community should seek the assistance of the county supervisor in developing the various homemaking activities. In schools where the services of the county supervisor are not available a similar contract may be made by the rural teacher of elementary grades with a trained home economics teacher in a nearby community.

A list of books for pupil and teacher use has been prepared. These should serve as a guide in carrying out the technical features of the activities.

LIST OF BOOKS FOR PUPIL USE

Kinyon-Hopkins—Junior Food and Clothing—Benj. H. Sanborn & Co., New York
Kinyon-Hopkins—Junior Home Problems—Benj. H. Sanborn & Co., New York
Cooley & Spohr—Household Arts for Home and School, Volume I, The Family Budget—Furnishing, Care of the Baby, Textiles and Sewing, Selection of Clothing—Macmillan Co., New York
Cooley & Spohr—Household Arts for Home and School, Volume II, Care of the Home, Selection of Food, Cooking and Serving, Laundering, Hospitality—Macmillan Co., New York
Faculty of the South Philadelphia High School for Girls—Everyday Manners—Macmillan Co., New York

LIST OF BOOKS AND PAMPHLETS FOR TEACHER USE

Winchell—Food Facts for Everyday—J. B. Lippincott Co., Philadelphia
Calvert—First Course In Homemaking—Turner E. Smith Co., Atlanta
Cook—Essentials of Sewing—The Manual Arts Press, Peoria
Brown and others—Clothing Construction—Ginn & Co., Boston
U. S. Department of Agriculture, Farmers' Bulletin No. 712—School Lunch—Washington, D. C.

Department of Interior, Bureau of Education, Health Education No. 7—The Lunch Hour at School—Washington, D. C.
Department of Agriculture Extension, Purdue University—Bulletin No. 72—The School Lunch—Lafayette, Indiana
College of Industrial Arts—The School Lunch—Denton, Texas
Cornell Junior Extension Bulletin No. 25—School Lunch and Breakfast for the 4-H Club Girl—Ithaca, New York.
University of the State of New York Bulletin No. 780—The Rural Hot Lunch and the Nutrition of the Rural Child—Albany, New York.

PART FOUR

PREPARATION OF THE HOT LUNCH

PART FOUR: PREPARATION OF THE HOT LUNCH

A. VALUE OF THE HOT LUNCH

A bulletin on the School Lunch, published by the University of Illinois, states that the Bureau of Child Hygiene of New York City, as a result of examining 171,000 school children, has estimated that twenty-one children in that city out of every one hundred are seriously undernourished and that about sixty-one are only passable from the standpoint of nutrition. Dr. T. D. Wood, a noted child specialist, is authority for the statement that the situation in the country is even more serious than in the city, and that country children attending rural schools are on the average less healthy and are handicapped by more physical defects than are the children of the cities, including all the children of the slums.

The hot lunch in the middle of the day will do much to relieve this situation. The lunch prepared at home in the morning is often unnutritious or scanty and is always cold when eaten. Not unfrequently children come to school without a lunch or find what they have carried distasteful and do not eat it. Such children are bound to suffer from hunger during the afternoon with a probable lowering of their ability to work. Moreover, the frequent lack of regular and nutritious food at midday is undoubtedly a contributing factor in the high average undernourishment found among children in rural communities.

B. ORGANIZATION OF THE HOT LUNCH

At least one hot dish or a nutritious lunch should be served where pupils remain at school during the noon hour. Unless the dish or dishes prepared in the school are specially starchy it is desirable that two substantial slices of bread and butter are included in each child's lunch. This bread and butter will frequently provide a foundation for the remainder of the lunch. Different teachers will find different ways to meet the cost of the necessary food. Much help may be obtained from a well organized mothers' club. In short, the teacher will find few difficulties attached to supplementing the school lunch. Pupils are usually anxious to help, and if the work of preparing the lunch is carefully organized and written upon a sheet of paper little verbal instruction will be necessary. An older boy or girl may be chairman of the committee and assume responsibility for the work. This plan relieves the teacher of many of the details and the children

look upon the lunch as their own project. Thus the preparation of the school lunch becomes a valuable project for the children and makes the teacher's part merely a supervisory one.

In addition to its nutritive value the school lunch has a cultural value that deserves mention. It furnishes innumerable concrete situations for the development of courteous food service and good table manners. Such opportunities should be capitalized by the teacher in ways that will help the child without embarrassing him or hurting his feelings.

The equipment necessary for the serving of the hot lunch to the children of the rural schools is inexpensive and easy to secure. Much of it may be obtained at the ten-cent store. The total cost is low. Lists of equipment will differ in different schools. The following lists may be used as a whole or they may be modified to meet special conditions.

C. LUNCH EQUIPMENT FOR THE ONE-ROOM RURAL SCHOOL

1. **Stove used for heating the room.** If the top of the stove is not flat, a strong wire frame which will hold the soup kettle may be made to fit the top of the stove. (See list for auxiliary room).

2. **Cooking equipment**

   1 soup kettle with cover 8 qts. for 24 pupils
   1 sauce pan with cover 6 qts. or the proper size to fit into the top of the soup kettle to form a double boiler
   I ladle No. 50
   1 can opener
   1 measuring cup ½ pt.
   1 quart measure
   1 Dover egg beater (large size)
   1 wooden spoon
   1 pair of aluminum salt and pepper shakers
   1 asbestos mat

3. **Other equipment needed**

   1 milk can—1 gal. (covered)
   1 water pail—12 qts.

4. **Cleaning equipment**

   2 dishpans—14 qts.
   Dish towels, dish cloths, 1 soap dish, soap

5. Equipment which may be brought from home

1 individual soup bowl—white enamel
1 cup—white enamel
1 spoon

6. Other equipment

a. Dry goods box
The top covered with oil cloth may be used as a table. The inside should be fitted up with shelves and used as a cupboard for dishes and cutlery. A door in front will keep out dust and mice. Racks on the inside of the doors for holding knives, spoons and brushes.

b. A supply of paper hand towels is recommended. These can also be used as napkins and as doilies for the tops of the desks when the desk tops are used as individual tables.
Such use is not extravagance—it is education.

c. Two or more wash basins are a necessity.

All equipment must be kept spotlessly clean; first as a food sanitary measure, second as a matter of training pupils.

Cooking and cleaning utensils should be kept in the cabinet out of sight.

D. LUNCH EQUIPMENT FOR A ONE-TEACHER RURAL SCHOOL HAVING AN AUXILIARY ROOM

1. Stove

An oil stove, blue flame, two burner

2. Cooking equipment

1 soup kettle, with cover 8 qts. for 24 pupils
1 sauce pan, with cover 6 qts. or the proper size to fit into top of the soup kettle to form a double boiler
1 ladle No. 50
1 can opener
1 measuring cup, ½ pt.
1 quart measure
1 Dover egg beater (large size)
2 stainless paring knives
2 wooden spoons
2 vegetable brushes
1 pair of aluminum salt and pepper shakers
2 asbestos mats

3. **Other needed equipment**

   (a) Lard tins or cracker boxes serve as suitable containers for food materials.
   (b) 1 water pail—12 qts.
   (c) 1 covered garbage pail—10 qts. (galvanized)
   (d) 1 milk can—1 gal. (covered)

4. **Cleaning equipment**

   2 dishpans—14 qts.
   Dishtowels, dish cloths, soap and soap-dish.
   Note: Sauce pan can be used for heating dish water.

5. **Equipment which can be brought from home:**

   1 individual soup bowl—white enamel.
   1 cup—white enamel.
   1 spoon.

6. **Other equipment**

   (a) Dry goods box.
   The top covered with oil cloth may be used as a table.
   The inside should be fitted up with shelves and used as a cupboard for dishes and cutlery. A door in front will keep out dust and mice. Racks on the inside of the doors for holding knives, spoons, brushes.
   (b) A drop shelf attached by hinges to a side wall.
   (c) A supply of paper hand towels is recommended. These can also be used as napkins and as doilies for the tops of the desks when the desk tops are used as individual tables. Such use is not extravagance—it is education.
   (d) Two or more wash basins are a necessity.

BIBLIOGRAPHY

The Lunch Hour at School—Bureau of Education, Washington, D. C.
Bulletins on rural school lunch equipment and organization can be obtained from these sources:
Department of Welfare, Harrisburg, Pa.
Extension Service, University of Ohio, Columbus, Ohio.
Extension Service, Cornell University, Ithaca, N. Y.
Department of Agriculture, University of Illinois, Urbana, Ill.
Extension Service, University of Nebraska, Lincoln, Nebraska.
Department of Agricultural Extension, State College, Pa.
Extension Service, Iowa University, Iowa City, Iowa.

PART FIVE

LIBRARY BOOKS

PART FIVE: LIBRARY BOOKS FOR ONE-TEACHER SCHOOLS

I. ORGANIZATION OF A ONE-TEACHER SCHOOL LIBRARY

Every school should have a working collection of the books which are needed to carry out the suggestions of the courses of study. These books are to be the nucleus of the school library and are to be freely used by the pupils in their classroom assignments. Library books should be lent to pupils for home reading.

Lists of books covering the various subjects of the curriculum may be had upon application to the County Superintendent or the Department of Public Instruction.

A. PURCHASE OF BOOKS

It is advisable to order all the books selected for purchase at one time and through one book dealer. The order list should give the following information: author, title, publisher. It should be remembered that the price of books is constantly changing. Most book dealers offer from ten to fifteen percent discount.

B. CARE AND USE OF BOOKS

A thin coat of clear shellac applied with a broad brush will preserve the attractive covers of books. When soiled the books may be cleaned with a damp cloth.

A record of books belonging to the school should be kept either in an accession or blank book. Accession books may be secured from library supply firms.

Ownership imprint should be neatly stamped on the title page and on the bottom margin of a page in the body of the book.

C. RECORDS OF BOOKS ISSUED

Records of books issued to pupils for home reading should be kept if the greatest good to the greatest number of pupils is to be achieved. For a collection of books not exceeding one hundred titles, cards especially ruled and printed for this purpose are recommended. These

may be secured from library supply houses. The cards are four by six inches in size and have two holes punched at the bottom. A small loose-leaf note book with ruled pages may be used in place of the cards.

The author and the title of the book are entered at the top of the card. There are spaces for the borrower's name and the date when the book is due. One card is made for each book. The grade for which the book is intended is marked in the upper right hand corner of the card. Just below the grade the accession number is marked. The accession number is necessary in order to identify each individual book belonging to the school.

All cards belonging to the library are arranged alphabetically by authors and are fastened with cords or rings within manilla board covers, thus serving as a list of the books in the collection as well as providing the simplest and most efficient kind of charging system.

D. RECORDS OF BOOKS READ

Records of books read by pupils should be kept as an aid in developing a reading habit. The record may be kept on uniform slips to be filed by the teacher or in small individual notebooks.

The following form is suggested:

Author .....

Title .....

State briefly the general subject of the book .....

Did you enjoy the book? .....

What ideas contained in the book can you use after leaving school?

Name .....Grade .....

E. TEACHING CARE OF BOOKS

Care of books should be taught in order to conserve them and to develop a habit of respect for public as well as personal property. The following points should be emphasized:

1. Keep hands clean.
2. Handle books carefully
   a. Open a new book a few pages at a time.
   b. Mark place without injuring book by using strips of paper or ribbon.
3. Don't soil books
   a. By moistening the fingertips in turning pages.
   b. By turning the open book face downward, especially upon a soiled or dirty surface.

4. Don't injure the binding of books.
   a. By forcing books on shelves in a leaning position. This tends to loosen the binding.
   b. By exposing books to rain or snow on the way to and from school.
   c. By breaking the backs of books by placing papers and pencils between the pages.

Plan for definite periods for the enjoyment of books by handling them, having stories read from them, or having a story hour leading directly to a stimulating interest in books.

II. SUGGESTED BOOKS FOR THE LIBRARY

Note: It is not supposed that the books herein listed are all to be bought at once. The first essential is to be supplementary reading for class use. The reference books and books for home reading should be added. The aim should be gradually to build up a useful school library.

A. REFERENCE BOOKS FOR PUPILS AND TEACHER

Bancroft—Games—Macmillan.
Champlain—Young folks cyclopedia of persons and places—Holt.
Comstock—Handbook of nature study—Comstock.
Goode—Economic atlas of the world—Rand.
Jenks—We and our government—Boni.
Murray and others—Boy scout handbook—Cromwell.
Olcott—Good stories for great holidays—Houghton.
Reed—Bird Guide—Doubleday.
Reed—Wildflower guide—Doubleday.
Rice—Lessons on use of school library—Rand.
Rogers—Tree guide—Doubleday.
Stern—Neighborhood entertainments—Macmillan.
Stevenson—Home book of verse for young folks—Holt.
Tappan—Little book of the flag—Houghton Sch. ed.
Webster—Collegiate dictionary—Merriam.
Wilson—School library management—Wilson.
World almanac—New York World.

B. GENERAL READING BOOKS FOR PUPILS

Bailey—Domestic science principles and applications—Webb.
Bailey—What to do for Uncle Sam—Flanagan.
Cooley and Spohr—Household arts for home and school, two volumes—Macmillan.
Deming and Bemis—Pieces for every day the schools celebrate—Noble.

Fabre—Insect adventure—Dodd.
Fall—Science for beginners—World.
Griffith—Stars and their stories—Holt.
McFee—The year's entertainment—Owen.
Parsons—Land of fair play—Scribner.
Reinach—Apollo; an illustrated manual of the history of art. Newed —Scribner.
Sanford and *Owen*—Modern Americans—Laurel.
Sanford and *Owen*—Modern Europeans—Laurel.
South Phila. H. S. for Girls—Everyday manners for American boys and girls—Macmillan.
Tappan—Industrial readers, four volumes—Houghton.
Van Loon—Story of mankind—Macmillan.
Winslow—Healthy living, two volumes—Merrill.
Woodburn and Moran—Makers of America—Longmans.

C. REFERENCE BOOKS ON HISTORY AND GEOGRAPHY

Allen—New Europe—Ginn.
Allen—North America—Ginn.
Beard and Bagley—First book in American history—Macmillan.
Beard and Bagley—History of American people—Macmillan.
Blaisdell—Child life in many lands—Macmillan.
Bowman—South America—Rand.
Burnham—Making of our country—Winston.
Burnham—Our beginnings in Europe and America—Winston.
Burnham—Short history of Pennsylvania—Hinds.
Chamberlain—Africa—Macmillan.
Carpenter—North America—American.
Doughton—Preparing for the world's work—Scribner.
Fisher—Resources and industries of the United States—Ginn.
Griffith—Stars and their stories—Holt.
Hall and Chester—Panama and the canal—Newson.
Haaren and Poland—Famous men of the middle ages—American.
Headland—Our little Chinese cousin—Page.
Hodgdon—The enchanted past—Ginn.
Hodgdon—First course in American history—Ginn.
Holbrook—Cave, mound and lake dwellers, and other primitive people —Heath.
Holden—Our country's flag, and the flags of foreign countries—Appleton.
Huntington—Asia—Rand.
Mace and Bogardus—History of the United States—Rand.
Parkman—Conquests of invention—Century.
Shepherd—Geography for beginners—Rand.

Smith—Number stories of long ago—Ginn.
Smith—Our neighborhood—Winston.
Smith—Commerce and industry—Holt.
Sparks—The men who made the nation—Macmillan.
Tappan—American hero stories—Houghton.
Thralls—Geography of Pennsylvania—Macmillan.
Turkington—My country—Ginn.
Wells—How the present came out of the past—Macmillan.
Wilson—History reader—Macmillan.

D. SUGGESTED SUPPLEMENTARY READING

Note: Selection should be made as suggested in the Course of Study in English. The majority of books that pupils will use to make up their reading of literature and their general reading can be taken from these lists from time to time. One copy of each is sufficient except for such as are needed in class use.

D CLASS: FIRST AND SECOND YEARS

FIRST YEAR

Baker—Everyday classics, primer and first reader—Macmillan.
Baldwin—A fairy reader—American.
Bannerman—Little Black Sambo—Altemus.
Bates—Once upon a time—Rand.
Blaisdell—Child-life primer—Macmillan.
Coe—Story hour reader, first reader—American.
Craik—So-fat and Mew-mew—Heath.
Davidson—Busy brownies at play—Newson.
Elson—Elson primer and first reader—Scott.
Firman—Winston primer and first reader—Winston.
Grover—Sunbonnet babies—Rand.
Lane—Oriole stories—Ginn.
LaRue—The F-u-n book—Macmillan.
McMahon—Rhyme and story primer—Heath.
Potter—Peter Rabbit—Warne.
Read—An engine's story (Social Science readers)—Scribner.
Treadwell—Reading-literature: The primer—Rowe.
Wiley—Mother Goose primer—Merrill.
Young—Literary readers, book one—Ginn.

SECOND YEAR

Baker—Everyday classics, second reader—Macmillan.
Baldwin—Another fairy reader—American.
Bryce—Child love dramatic reader—Scribner.

Burgess—Old mother west wind—Little.
Dutton—In field and pasture—American.
Fox—Indian primer—American.
Grover—Overall boys—Rand.
Higgins—Holiday in Mother Goose land—Newson.
Holbrook—Hiawatha primer—Houghton.
Lucia—Peter and Polly in spring—American.
Marcomb—Red feather, book one—Lyons.
Norton—Heart of oak books, book one—Heath.
Patch—Hexapod stories—Atlantic.
Perkins—Eskimo twins—Houghton.
Read—An airplane ride (Social science readers)—Scribner.
Welsh—Perrault's tales of Mother Goose—Heath.
Tileston—Children's hour—Little.
Williston—Japanese fairy tales—Rand.
Young—Literary reader, book two—Ginn.

C. CLASS: THIRD AND FOURTH YEARS

THIRD YEAR

Aesop—Aesop's fables—Macmillan.
Anderson—Selected stories—Dutton.
Andrews—Stories of my four friends—Ginn.
Babbit—Jataka tales—Century.
Barrie—Peter Pan—Silver.
Browne—Granny's wonderful chair—Dutton.
Carpenter—Around the world with the children—American
Davis—Chinese fables and folk stories—American.
Grimm—Household tales—Houghton.
Holbrook—Dramatic reader—American.
Lansing—Life in the greenwood—Ginn.
Mulock—Little lame prince—Lippincott.
Norton—Heart of oak books, book two—Heath.
O'Shea—Old world wonder stories—Heath.
Patch—Bird stories—Atlantic.
Pyle—Prose and verse for children—American.
Scudder—Fables and folk stories—Houghton.
Serl—In fairyland—Newson.
Skinner and Skinner—Nursery tales from many lands—Scribner.
Stevenson—A child's garden of verses—Scribner.
Thorne-Thomsen—East o' the sun and west o' the moon—Row.

FOURTH YEAR

Abbot—Boy on a farm—American.
Baldwin—Fifty famous stories retold—American.

Baldwin—Old Greek stories—American.
Brown—In the days of giants—Houghton.
Collodi—Pinocchio—Winston.
Colum—The Children who followed the piper—Macmillan.
Coryn—Indian hero tales—Little.
De la Rame—Nurnberg stove—Lippincott.
Ghosh—Wonders of the jungle, book one—Heath.
Hardy—Sea stories for wonder eyes—Ginn.
Hawthorne—Little Daffydowndilly—Houghton.
Jacobs—English fairy tales—Putman.
Lofting—Voyages of Doctor Dolittle—Stokes.
Long—Wilderness ways—Ginn.
MacDonald—At the back of the north wind—Lippincott.
Norton—Heart of oak books, book three—Heath.
Price—Wandering heroes—Silver.
Scudder—Book of legends—Houghton.
Seaton—Lobo, Rag, and Vixen—Scribner.
Skinner—Tales and plays of Robin Hood—American.
Spyri—Moni, the goat boy—Lippincott.
Teasdale—Rainbow gold—Macmillan.
White—Magic forest—Macmillan.
Zitka-Sa—Old Indian legends retold—Ginn.

B. CLASS: FIFTH AND SIXTH YEARS

Carroll—Alice's adventures in wonderland—Macmillan.
Dorrance—Story of the forest—American.
Dodge—Hans Brinker—Ginn.
Eggleston—Hoosier school boy—Scribner.
Fabre—Insect adventures—World.
Grahame—Wind in the willows—Scribner.
Hawthorne—Wonder book—Dutton.
Hawthorne—Tanglewood tales—Houghton.
Holder—Stories of animal life—American.
Howells—Christmas every day—Harper.
Kingsley—The heroes—Dutton.
Lagerlof—Wonderful adventures of Nils—Doubleday.
Lane—Arabian nights' entertainments—Ginn.
McMurray—Pioneers on land and sea—Macmillan.
Macterlinck—Blue-bird for children—Silver.
Norton—Heart of oak books, book four—Heath.
Porter—Stars in song and legend—Ginn.
Pyle—Some merry adventures of Robin Hood—Scribner.
Sharp—A watcher in the woods—Century.
Spyri—Heidi—Ginn.

Stockton—Fanciful tales—Scribner.
Wiggin and *Smith*—Tales of laughter—Doubleday.

SIXTH YEAR

Andersen—Hans Andersen's stories—Houghton.
Alcott—Little women—Little.
Baldwin—Story of Roland—Scribner.
De la Ramee—Dog of Flanders—Rand.
Colum—The children's Homer—Macmillan.
Defoe—Robinson Crusoe—Dutton.
Guerber—Story of the Greeks—American.
Irving—Tales from the Alhambra—Houghton.
Kipling—Jungle book—Doubleday.
Mills—Being good to bears—Houghton.
Montieth—Popular science reader—American.
Olcott—Story-telling poems—Houghton.
Sewell—Black Beauty—Dutton.
Sharp—Beyond the pasture bars—Century.
Sidney—Five little Peppers—Lothrop.
Smith—Good old stories for boys and girls—Lothrop.
Tappan—Old ballads in prose—Sch. Ed.—Houghton.
Tappan—Story of the Roman people—Houghton.
Wiggin—Summer in the canyon—Houghton.
Wyss—Swiss family Robinson—Ginn.
Zwilgmeyer—What happened to Inger Johanne—Lothrop.

A CLASS: SEVENTH AND EIGHTH YEARS

SEVENTH YEAR

Boyesen—Boyhood in Norway—Scribner.
Bruce—Daniel Boone and the wilderness road—Macmillan.
Dickens—A Christmas carol—Dutton.
Elson—Junior high school literature—Scott.
Franklin—Autobiography—Houghton.
French—Story of Rolf and the Viking's bow—Little.
Garland—Boy life on the prairie—Harper.
Green—Legends of King Arthur and his court—Ginn.
Hawthorne—Great Stone Face and other tales from the white hills—Houghton.
Hawksworth—Adventures in nature's wonderland—World.
Irving—Rip Van Winkle and the legend of Sleepy Hollow—Houghton.
Longfellow—Evangeline—Houghton.
Marvin—Stories from the Iliad—Dutton.

Mayo—Standard bearers—Houghton.
Melville—Typee—Dutton.
Nicolay—Boy's life of Abraham Lincoln—Century.
Parkman—Rivals for America—Little.
Twain—Adventures of Tom Sawyer—Harper.
Wiggin—Rebecca of Sunnybrook farm—Houghton.

EIGHTH YEAR

Bennett—Master skylark—Century.
Brooks—First across the continent—Scribner.
Bullen—Cruise of the Cachalot—Appleton.
Cooper—Last of the Mohicans—Houghton.
Eastman—Indian heroes and great chieftains—Little.
Elson—Junior high school literature—Scott.
Fabre—Animal life in field and garden—Century.
Jewett—God's troubadour—Crowell.
Kipling—Captains courageous—Doubleday.
London—Call of the wild—Macmillan.
Longfellow—Tales of a Wayside Inn—Dutton.
Lamb—Adventures of Ulysses—Ginn.
Muir—Stikeen: the story of a dog—Houghton.
Muir—Boyhood of a naturalist—Houghton.
Mills—Story of a thousand year pine—Houghton.
Masefield—Jim Davis—Grosset.
Munroe—Fur-seal's tooth—Harper.
Porter—Scottish chiefs—Crowell.
Roosevelt—Wilderness hunter—Putnam.
Scott—Rob Roy—Ginn.
Singmaster—When Sarah saved the day—Houghton.
Smith and *Hazeltine*—Mystery tales for boys and girls—Lothrop.
Stevenson—Treasure Island—Ginn.
Shakespeare—Julius Caesar—Dutton.
Stevenson—Kidnapped—Scribner.
Twain—Adventures of Huckleberry Finn—Harper.
Twain—Prince and the pauper—Harper.

E. SOME BOOKS FOR TEACHERS

Bagley—School discipline—Macmillan.
Barnes—Rural school management—Macmillan.
Bryant—How to tell stories to children—Houghton.
Carney—Country life and the country school—Row.
Chubb—The teaching of English—Macmillan.
Charters—Teaching the common branches—Houghton.
Cubberly—Rural life and education—Houghton.

Fought—Rural teacher and his work—Houghton.
Germane—Silent reading—Row.
Gray and others—Eighteenth year book, part two—Public School.
James—Talks to teachers—Holt.
Kendall—How to teach the fundamental branches—Houghton.
Kirkpatrick—The rural school from within—Lippincott.
Linquist—Modern arithmetic methods and problems—Scott.
Overman—Principles and methods of teaching arithmetic—Lyons.
Pittman—Successful teaching in rural schools—American.
Schmucker—Nature study—Lippincott.
Simpson—Supervised study in American history—Macmillan.
Scheaffer—Thinking and learning to think—Lippincott.
Smith—What can literature do for me—Doubleday.
Sutherland—Teaching of geography—Scott.
Thorndike—Teacher's word book—Columbia Press.
Tryon—Teaching of history—Ginn.
Tompkins—Philosophy of school management—Heath.
Turner—The child—Rand.
Wilkinson—Rural school management—Silver.

F. PAMPHLETS FOR TEACHERS

The following helpful publications may be secured at little or no expense.

Agriculture—Free publications of the Department of Agriculture classified for the use of teachers, Circular, 9, U. S. Department of Agriculture, Washington, D. C.

Health—Program for health teaching in the elementary schools. Health Education No. 10. Department of Interior, Bureau of Education, Washington, D. C. Who is Who in Healthland. School Health Studies No. 3. Department of Interior, Bureau of Education, Washington, D. C.

Geography—Material on geography which may be obtained free, or at small cost. Eastern Illinois State Normal School, Charleston, Illinois. Descriptive booklets—Chamber of Commerce in larger cities, Railroads and Steamship Companies—Geographic News Bulletin, National Geographic Society, Washington, D. C. 25 cts.

Library—Modern equipment for one-teacher schools. Rural School Leaflet No. 3. Bureau of Education, Washington, D. C., Free.
How to Organize a Library. Library Bureau. Phila., Pa., Free.
The Red Book. Gaylord Brothers, Syracuse, N. Y. Free.
Bookshelf for Boys and Girls. Free at book stores.

G. ADDRESSES OF PUBLISHERS

American Book Company, 88 Lexington Ave., New York City.
Henry Altemus Company, 1326 Vine St., Philadelphia.
Appleton and Company, 29-35 W. 32nd St., New York City.
Atlantic Monthly Press, Inc., 34 Beacon St., Boston, Mass.
Boni and Liveright, 61 W. 48th St., New York City.
Century Company, 353 Fourth Ave., New York City.
Bureau of Publications, Teachers College, New York City.
T. Y. Crowell Company, 393 Fourth Ave., New York City.
Dedd, Mead and Company, Inc., 443 Fourth Ave., New York City.
Doubleday, Doran and Company, Inc., Garden City, N. Y.
E. P. Dutton and Company, 286-302 Fourth Ave., New York City.
Ginn and Company, 15 Ashburton Place, Boston, Mass.
Harcourt, Brace and Co., 383 Madison Ave., New York City.
Grosset and Dunlap, 1140 Broadway, New York City.
Harper and Brothers, 49 E. 33d St., New York City.
D. C. Heath and Company, 50 Beacon St., Boston, Mass.
Henry Holt and Company, Inc., 1 Park Ave., New York City.
Houghton, Mifflin Company, 2 Park St., Boston, Mass.
Alfred A. Knopf, 730 Fifth Ave., New York City.
J. B. Lippincott Co., E. Washington Square, Philadelphia, Pa.
Little, Brown and Co., 34 Beacon St., Boston, Mass.
Lothrop, Lee and Shepard Co., 275 Congress St., Boston, Mass.
Lyons and Carnahan, 221 E. Cullerton St., Chicago, Ill.
The Macmillan Company, 60 Fifth Avenue, New York City.
G. C. Merriam Company, Springfield, Mass.
Charles E. Merrill Co., 381 Fourth Ave., New York City.
Newson and Company, 73 Fifth Avenue, New York City.
Public School Publishing Co., Bloomington, Ill.
G. P. Putnam's Sons, Putnam Bldg., 2-6 W. 45th St., New York City.
Rand, McNally and Co., 538 S. Clark St., Chicago, Ill.
Fleming H. Revell and Co., 158 Fifth Avenue, New York City.
Row, Peterson and Co., 1911 Ridge Ave., Evanston, Ill.
Russell Sage Foundation, 130 E. 22nd St., New York City.
Scott, Foresman and Co., 623 S. Wabash Avenue, Chicago, Ill.
Charles Scribner's Sons, 597 Fifth Avenue, New York City.
Silver, Burdett and Co., 41 Union Square, W., New York City.
F. A. Stokes Co., 443-449 Fourth Avenue, New York City.
Frederick Warne and Co., 26 E. 22nd St., New York City.
John C. Winston Co., 1006-1016 Arch Street, Philadelphia, Pa.
World Book Company, Yonkers on Hudson, N. Y.

PART SIX

LEGAL AND PROFESSIONAL RELATIONS

PART SIX: LEGAL AND PROFESSIONAL RELATIONS

I. Elements of Organization

A. STATE ORGANIZATION

The school system of Pennsylvania, of which the elementary schools form a major part, rests on this constitutional provision:

> The General Assembly shall provide for the maintenance and support of a thorough and efficient system of public schools, wherein all the children of the Commonwealth above the age of six years may be educated.

In the general plan which the General Assembly has adopted for the administration of a system of public schools, the Commonwealth has been divided into school districts, each with its own local officers who administer and maintain the schools.

The schools in these districts taken as a whole constitute the Commonwealth system of public schools. The Commonwealth has a joint interest in each district, that of bringing about a coördination of the educational work of the Commonwealth that will result in an efficient system of public schools.

1. State Superintendent of Public Instruction

The Constitution provides for the office of a State Superintendent of Public Instruction. His duties in a general way are to supervise the schools of the Commonwealth and to "give information to the people upon questions and matters calculated to promote the cause of education." In carrying out these general duties he must collect data through reports, establish minimum standards through courses of study, provide for the training and certification of teachers and see to the proper enforcement of the provisions of the law throughout the Commonwealth. The law implies an inspirational duty, that of being the professional leader of the Commonwealth.

2. State Council of Education

This body takes the place of the State Board of Education and the College and University Council, and performs the functions formerly assigned to them by the School Law. Its duties in a broad way include the following: To recommend needed legislation, to provide

regulations for the sanitary inspection and equipment of buildings, to provide adequate educational advantages in all parts of the State, to encourage and promote agricultural education, and to inspect schools and institutions wholly or partly supported by the Commonwealth and require reports when thought necessary from these. It has the further duty of passing upon all charters for the incorporation of institutions of higher education with power to confer degrees. The council consists of nine members, serving for six years without compensation. They are appointed by the Governor of the Commonwealth. The Superintendent of Public Instruction is the chief executive officer and president of the council.

B. LOCAL UNITS: DEFINITION OF TERMS

The law gives to local authorities the power and responsibility for maintaining and operating such educational facilities as the needs of the district require. Among these powers and responsibilities is the provision of funds through local taxes for proper school grounds, building facilities, textbooks, supplies, the selection of teachers and other school employes, the extension of both the term and course of study beyond the minimum required by law and the enforcement of all laws relating to the local district.

Schools shall or may be established in accordance with these provisions of the law:

> Section 401. The board of school directors in every school district in this Commonwealth shall establish, equip, furnish, and maintain a sufficient number of elementary public schools, in compliance with the provisions of this act, to educate every person, residing in such district between the ages of six and twenty-one years, who may attend; and may establish, equip, furnish, and maintain the following additional schools or departments for the education and recreation of persons residing in said district, which said additional schools or departments, when established, shall be an integral part of the public school system in such school district, and shall be so administered, namely:
>
> High schools
> Manual training schools
> Vocational schools
> Home Economics schools
> Agricultural schools
> Evening schools
> Kindergartens
> Libraries
> Museums

Reading-rooms
Gymnasiums
Playgrounds
Schools for blind, deaf, and mentally deficient.
Truant schools
Parental schools
Schools for adults
Public lectures—together with such other schools or educational departments as they, in their wisdom, may see proper to establish.

1. County

The county is not a unit of school supervision and administration except in so far as the jurisdiction of the county superintendent makes it one.

2. School District

A school district is the unit of administration for the public school system. It may be a city, borough, township or independent district. Districts are of four classes:

a. *First Class.* Having a population of 500,000 or more.
b. *Second Class.* Having a population of from 30,000 to 500,000.
c. *Third Class.* Having a population of from 5,000 to 30,000.
d. *Fourth Class.* Having a population of less than 5,000.

3. School Director

School directors are the administrative officers of a school district. Their chief function is administrative rather than supervisory. In districts of the first class there are fifteen members; in second class districts, nine; in third class districts, seven; in fourth class districts, five. Directors are elected biennially at the November municipal election, one-third being chosen at each election. In first class and independent districts, however, the county court of common pleas appoints the members. School directors are chosen for a term of six years and receive no compensation.

In addition to the administration of the affairs of the school district, the following section of the law indicates the relation of the school directors to the ordinary procedure of the school.

> Section 404. The board of school directors in every school district in this Commonwealth may adopt and enforce such reasonable rules and regulations as it may deem necessary and proper, regarding the management of its school affairs, and the conduct and deportment of all superintendents, teachers, and

other appointees or employes during the time they are engaged in their duties to the district, as well as regarding the conduct and deportment of all pupils attending the public schools in the district, during such time as they are under the supervision of the board of school directors and teachers, including the time necessarily spent in coming to and returning from school.

4. Superintendent

Superintendents are elected "for the superintendence and supervision of the public schools of this Commonwealth." They serve for a term of four years and under a commission issued by the Superintendent of Public Instruction. The salaries of county and assistant county superintendents are paid by the State, of district superintendents by the districts. Every school district of the Commonwealth is under the jurisdiction of a superintendent.

a. *County Superintendent.* A county superintendent has jurisdiction over all schools of a county except such as have a district superintendent; that is, he is superintendent of all fourth class districts and such third class districts as have not elected their own district superintendents. County superintendents are elected by the school directors of the counties in convention assembled, on the same day over the State, the second Tuesday of April, and begin their terms hereafter on the first day of July following the election.

The duties of a county superintendent are enumerated in the School Law:

> Section 1123. It shall be the duty of every county superintendent to visit personally as often as practicable (in addition to the visiting herein required by assistant county superintendents if any), the several schools in the county under his supervision, to note the courses and methods of instruction and branches taught, to give such directions in the art and methods of teaching in each school as he deems expedient and necessary, and to report to the proper board of school directors any inefficiency found, so that each school shall be equal to the grade for which it was established and that there may be, as far as practicable, uniformity in the course of study in the schools of the several grades.
>
> Section 1124. It shall be the duty of every county superintendent to inspect the school grounds and school buildings visited by him, and to report to the board of school directors of the proper district any violations of any of the provisions or requirements of this act regarding the sanitary or other conditions thereof.
>
> Section 1149. It shall be the duty of each county and district superintendent to see that in every district there shall

be taught the several branches required by this act, as well as such other branches as the board of school directors may require.

b. *Assistant County Superintendent.* The School Law provides as follows for assistant county superintendents. (Section 1126).

Assistant county superintendents are appointed by the county superintendent in conjunction with the officers of the school directors' association of the county.

An assistant county superintendent's duties are thus defined by the law:

Section 1131. Every assistant county superintendent shall diligently visit the schools assigned to him by the county superintendent, and shall, under his direction, supervise and direct the work of the schools and see that each school is equal to the grade for which it was established, and that there is as far as practicable, uniformity in the courses of study of the several grades respectively, and shall, when so directed by the county superintendent, the Superintendent of Public Instruction, or a State inspector of high schools, direct or conduct examinations for promotion or graduation. He shall also inspect school property and see that the requirements of the law as to buildings, grounds, equipment, and sanitary arrangements are fully observed and complied with. During the school terms and vacations he shall assist the county superintendent in his work, and perform such other duties in connection with the public schools of the county as may be assigned him by the county superintendent. Provided, however, That the duties herein prescribed for the assistant county superintendents shall, in no case, be construed to lessen or limit the duty and responsibility of the county superintendent to visit all the schools under his jurisdiction as frequently as possible.

Section 1132. Assistant county superintendents shall meet with boards of school directors for conference when they deem it necessary, or when they are requested by the directors to do so, and shall make to their county superintendents monthly reports concerning the condition and progress of the schools which they have visited together with any needed recommendations, which reports shall be kept on file in the county superintendent's offices for not less than one year. The county superintendents shall forward to the various boards of school directors the reports and recommendations of the assistant county superintendents concerning the schools in their districts, or such portions thereof as they deem wise, together with any additional suggestions or recommendations.

c. *District Superintendent.* First and second class districts must, and third class districts may, elect district superintendents. In the

second and third class districts they are elected by the directors met in convention on the same day that the county superintendents are elected.

The School Law enumerates the following duties for a district superintendent:

> Section 1142. The duties of district superintendents shall be the same as those now required of county superintendents, and also such as shall be required of them by the boards of school directors of their respective district. The district superintendent shall have a seat in the board of school directors of the district, and the right to speak on all matters before the board, but not to vote.

d. *Assistant District Superintendent.* The number of assistant district superintendents in a district of the first, second, or third class is optional with the board of directors.

Assistant district superintendents shall perform such duties as may be assigned them by the boards of school directors or by the district superintendents.

5. Supervising Principal

The following provisions are made by the school law in regard to supervising principals and special supervisors:

> Section 1214. The board of school directors of any school district of the third or fourth class which has no district superintendent may employ, for a term not exceeding three years, a supervising principal of a part or all of the public schools of said school district. Every supervising principal shall have the same qualifications as are herein required for a superintendent of schools.

> Section 1215. Two or more school districts may join in the employment of a supervising principal, or a supervisor or teacher of drawing, music, or other special subject, for part or all of the schools of such districts; such supervising principal, supervisor or special teacher to be employed, his compensation paid, and his duties prescribed, by the several districts employing him.

The board of school directors may delegate to the supervising principal authority to "exercise general supervision over the schools of the district." In addition to this authority he assumes some of the duties imposed on individual teachers in districts that do not have such a principal. In a general way, the principal looks after the observing of the School Law as it is related to pupils and to instruction. He is responsible for maintaining the discipline of the school, for making

the classification of pupils (in conjunction with the proper superintendent), for supervising the instruction by the teachers, for the carrying out of regulations in regard to courses of study, and for keeping the board informed as to the condition of the schools.

6. Teacher

The teacher is the vital factor in providing a "system of public schools." It is obligatory on the part of every board of school directors to employ the necessary qualified teachers to keep the schools of the districts open in compliance with the law. Every teacher so employed must be at least eighteen years of age, must be in good health, and must hold a legal certificate for the grades and branches she is to teach. The rights and duties of the teacher are set forth in another part of this manual.

7. Pupil

The public schools exist for the children. Provision for the education of every child is required under the law. These provisions of the school law help to define the word pupil:

> Section 1401. Every child, being a resident of any school district in this Commonwealth, between the ages of six and twenty-one years, may attend the public schools in his district, subject to the provisions of this act.
>
> Section 1402. A child shall be considered a resident of the school district in which his parents or the guardian of his person resides. If any child has no parents or guardian of his person, then such child shall be considered a resident of the district in which the person sustaining parental relations to such child resides.

8. Kindergarten

A kindergarten is a school for children between the ages of four and six years. Such a school may be established in a district of any class on petition of the parents or guardians of at least twenty-five children of such ages residing within the district, and within one mile of any elementary school building.

A board of school directors may, in addition to all other taxes, levy a two-mill tax for support of a kindergarten.

9. Elementary School

The School Law says that "the board of school directors in every school district of this Commonwealth shall establish, equip, furnish and maintain a sufficient number of elementary schools in accordance with the provisions of this act to educate every person residing in

such district, between the ages of six and twenty-one years who may attend."

The term "elementary school" is used to include the grades not recognized as high school grades. The law defines a high school as an organization of grades seven, eight, nine, ten, eleven, and twelve. In case, however, where grades seven and eight are not organized as junior high school grades or as a part of a six-year high school, they shall be considered as a part of the elementary school.

10. School Year

The school year in first, second, and third class districts shall include a minimum school term of one hundred eighty days. In fourth class districts the minimum for elementary schools is one hundred sixty days and for high schools one hundred eighty days. A board of school directors may establish a school term beyond the minimum. They also fix the dates of the beginning and ending of the school term. In districts of the fourth class the board of school directors may shorten the period of compulsory attendance for children fourteen years of age and over to not less than seventy percent of the school term, but they shall at the same time fix the date for the compulsory attendance to begin.

The School Law further provides that "twenty days of actual teaching shall constitute a school month" and that "no school shall be kept open on any Saturday for the purpose of ordinary instruction, except when Monday is fixed by the board of school directors as the weekly holiday, or on Sunday, Fourth of July, or Christmas, nor shall any school be kept open in any district during the time of holding the annual teachers' institute for such district."

11. School Day

The School Law provides that "unless otherwise determined by the board, the daily session of school shall open at nine ante meridian and close at four post meridian, with an intermission of one hour at noon, and an intermission of fifteen minutes in the forenoon and in the afternoon."

12. Holidays

In addition to the observance of the Fourth of July and Christmas the School Law makes the following provisions as to holidays:

> Section 1604. The board of school directors in any district in this Commonwealth shall, by a majority vote, decide which other holidays may be observed by special exercises, and on which holidays, if any, the schools shall be closed during the

whole or part of the day. And the board of school directors may provide for such vacations in its district at it deems wise: Provided, That no days on which the schools are closed shall be counted as days taught.

C. COURSE OF STUDY

The School Law provides for the following minimum course of study:

> Section 1607. In every elementary public and private school established and maintained in this Commonwealth, the following subjects shall be taught in the English language and from English texts: English, including spelling, reading, and writing; arithmetic; geography; the history of the United States and of Pennsylvania; civics, including loyalty to the State and National Government, training in safety-first methods, and the humane treatment of birds and animals; health, including physical training and physiology; music; art. Other subjects shall be taught in the public elementary schools and also in the public high schools as may be designated or approved by the State Board of Education. All such subjects, except foreign languages, shall be taught in the English language and from English texts.
>
> Section 1608. The board of school directors in every school district in this Commonwealth, with the advice, assistance, and approval of the proper superintendent of schools, shall arrange a course or courses of study adapted to the age, development, and needs of the pupils. These courses of study shall conform to any general course of study arranged by the Superintendent of Public Instruction, so far as the local conditions in respective districts permit.

The minimum courses of study issued by the Department of Public Instruction are available for all districts as a basis for instruction in all branches. These courses of study are not textbooks or to be used as textbooks; they are suggestive outlines as to the material and method of instruction.

A course of study is an approximate guide to what the pupils of any year may be able to do. The amount of work covered will depend not only upon the ability of the pupils, but also upon their industry and their effective management by the teacher. No more of the course of study should be undertaken than can be well done. No course of study was ever made to be completed in a certain time, nor the subject matter taken in the exact order indicated. The purpose is to get the more essential features of the course well fixed in the minds of a majority of the pupils. It will be advisable for every principal and teacher to make a tentative schedule of the year's work, checking and revising from time to time, so as to teach well the more essential material of the course.

It is only reasonable to suppose that a majority of the pupils should be advanced in the course each year. If they are not so advanced it is due to a number of causes most of which cannot be laid to the pupils themselves. Children in danger of non-promotion in the course should be carefully studied in order to determine the causes of seeming failure. These causes should, if possible, be removed, or in justice to the children, adjustments should be made in subject matter. Every pupil does not need to take all subject matter in a year's assignment. A pupil whose ability warrants it may omit a part of the course of study. By the assignment of the right type of work from the course of study and by effective instruction and drill, a great majority of the average class can be sent on to another year at the end of the school term.

D. TIME ALLOTMENT.

The following table gives the approximate number of minutes to be devoted to each of the different activities in the several grades. The allotment is based upon the six-hour school day designated in the School Law. The time assigned to the different subjects includes that used for both recitation and study. On the whole, it is best to assign definitely all the available time. Some teachers, however, prefer to have a period of unassigned time which may be used in a variety of ways where it will serve to the best advantage. The best time for this period is not at the very end of the school day.

TIME DISTRIBUTION TABLE

SUBJECT	YEARS								
	Minutes per week								
	I	II	III	IV	V	VI	VII	VIII	Total
Opening Exercises	75	75	75	75	75	75	75	75	600
English—Reading	450	400	350	250	225	225	200	200	2,275
Spelling	-------	-------	75	75	75	75	75	75	450
Composition	50	50	75	125	125	125	150	150	850
Handwriting	-------	50	75	75	75	75	75	75	500
Arithmetic	50	75	125	125	150	150	225	225	1,125
Geography, Nature Study, Science*	50	75	75	100	175	175	180	180	1,010
History and Civics	50	50	75	100	125	125	180	180	885
Health—Recesses	150	150	150	150	150	150	75	75	1,050
Physical Education	90	90	90	90	80	80	80	80	680
Health Training and Instruction	60	60	60	60	60	60	60	60	480
Music	100	100	100	100	100	100	125	125	850
Art—Drawing and Practical Arts	150	150	150	150	180	180	180	180	1,320
Unassigned	-------	-------	-------	-------	-------	-------	-------	-------	-------
	1,275	1,325	1,475	1,475	1,595	1,595	1,680	1,680	

*All the time of the first and second years is allotted to nature study and all of the second half of the eighth year to science. In the other years, the regular time and also the unassigned time, as necessary, should be divided according to local requirements.

A flexible time schedule is useful in schoolroom practice. It provides a means for checking up the time pupils give to the several subjects and thereby keeps the work of the school day fairly well balanced. In arranging a daily program of recitation and study, teachers should generally follow this time schedule.

E. PROGRAM OF DAILY WORK

When a teacher is directly under a supervising principal, such principal should make the time allotment or assignment for different branches. It is part of the teacher's work to make out her own program in accordance with this time allotment; but the program as so made should be subject to the approval of the proper supervisory authority. If changes are made at any time in the permanent arrangement of the program, notice of such changes should be given to the supervising principal or, where there is no such principal, directly to the superintendent's office. The program of daily work should be posted in the classroom.

In the arrangement of the program it is necessary to see that pupils have definite study assignments as well as assignments for recitation purposes.

The program that is arranged should be followed generally. There is no single thing that will upset the classroom work so much as omitting classes for a day, or getting behind in the schedule and having to make shifts to the following day when the pupils have had their work prepared for the regular period.

1. Display of Flag

It is evidently the intent of the School Law that the principal, or the teacher in a single room or other township school, shall exercise the mandate given to the board of school directors in regard to the display of the flag:

> Section 629. That board of school directors in each district, shall, when they are not otherwise provided, purchase a United States flag, flagstaff, and the necessary appliances therefor, and shall display said flag upon or near each public school building in clement weather, during school hours, and at such other times as the said board may determine.
>
> All boards of education, all proprietors or principals of private schools, and all authorities in control of parochial schools or other educational institutions, shall display the United States national flag, not less than three feet in length, within all school buildings under their control during each day such schools are in session. In all public schools. the

board of school directors shall make all rules and necessary regulations for the care and keeping of such flags. The expenses thereof shall be paid by the school district.

The teacher should see that a United States flag is properly displayed in her classroom. It should be displayed flat, horizontally or vertically against the wall, the union uppermost to the observer's left. This is regardless of the cardinal points of the compass. The pupils should be accustomed to saluting this flag. The boy scouts' pledge to the flag is a good one: "I pledge allegiance to my Flag and to the Republic for which it stands; one nation indivisible, with liberty and justice to all."

All boys and girls in the public schools should be taught the ordinary etiquette in connection with the American flag. The following rules set forth by the Sons of the Revolution ought to be observed:

It should not be hoisted before sunrise nor allowed to remain up after sunset.

At "retreat," sunset, civilian spectators should stand at attention and on the last four strains of the music uncover, holding the headdress top outward, in the right hand, opposite the left shoulder, right forearm against the breast.

When the national colors are passing on parade or review, the spectators should, if walking, halt, and if sitting, arise, and stand at attention and uncover.

When the flag is flown at half staff as a sign of mourning it should be hoisted to full staff at the conclusion of the funeral. In placing the flag at half mast, it should first be hoisted to the top of the staff and then lowered to position, and preliminary to lowering from half staff it should first be raised to the top.

On Memorial Day, May 30th, the flag should fly at half mast from sunrise until noon and full staff from noon to sunset.

2. Opening Exercises

The character of the opening exercise will go far toward determining the character of the classroom life for the day. The devotional phases—Bible reading and the singing of one or two sacred songs—of such exercises, conducted without hurry, will induce a thoughtful approach to the day's work. Opening exercises should be planned and conducted with thought and interest. Such exercises will afford excellent opportunity for short talks by the teacher, or exercises by the pupils.

The provision of the law on reading the Bible is as follows:

Section 3901. That at least ten verses from the Holy Bible shall be read or caused to be read, without comment, at the

opening of each and every public school, upon each and every school day by the teacher in charge: Provided, That where any teacher has other teachers under and subject to direction, then the teacher exercising this authority shall read the Holy Bible, or cause it to be read, as herein directed.

3. Visitors

The average visitor comes to help the school or to be helped by it. Such a visitor is entitled to the most hospitable and courteous treatment. He should go away satisfied that the school is doing its work in an efficient and fair-minded way. During a visit, a teacher should by all means keep to the regular program of the day's work. There is no justification whatsoever for attempting any special exercises. A visitor who is rightly disposed wants to see the actual school work as it goes on day by day. Teachers should visit the homes of children as much *to seek advice of parents* and *to commend good work* as to complain.

A teacher should keep in mind that every patron of the district is nominally her employer. The school is maintained for the children and in them the patron has or should have a first-hand interest. When he makes a visit to the school he should leave satisfied that the teacher is making every effort to do her work effectively. He should not want undue attention or any shifting in the program for his benefit. He is interested in knowing that the teacher is courteous, patient and efficient.

4. Official Visitors

One of the greatest factors in improvement of school work is close supervision. This is of two kinds: supervision by school supervisors and supervision by special teachers. A supervisor is employed to aid the teachers in the improvement of their work. The teacher should realize this and coöperate to the greatest degree in carrying out the suggestions of the supervisor. To disagree is not lack of coöperation. Teachers should be willing to discuss suggestions that come from the supervisor and in all cases should coöperate with the supervisor in working out all problems.

Some special teachers are necessary in building up a good system. Coöperation between special teacher and classroom teacher is absolutely necessary. The special teacher must be familiar with his subject and the method of presenting it.

The classroom teacher should be ready at all times to aid the special teacher in her work. She is responsible for the discipline of the class while in charge of the special teacher and should follow the instruc-

tion of the special teacher so as to be able to teach the work assigned. Both should discuss details regarding the work and have a full understanding of the essentials of the subject at hand. A classroom teacher should not leave her class in the hands of a special teacher while she herself visits, reads, or makes reports.

5. Recitations

A recitation should be an event, should be well planned, and should not start until the teacher and class are ready to start. When it is concluded it should have arrived at a worth while end.

In the planning of a recitation some main objective should be constantly kept in mind and pupils should be brought back toward this main objective when they begin to wander in their discussions. The teacher should not be side-tracked in any way in her purpose to carry out her plan.

6. Classroom Study

Properly directed study for the pupils is as necessary as are properly conducted recitations. All such direction requires careful planning. Seat work devices should also be provided for the primary pupils. A teacher should bring about the best study facilities possible for her classroom.

7. Recesses

The purpose of the fifteen-minute recesses in the middle of the forenoon and afternoon is to afford relaxation from mental exercise and to provide opportunity for physical exercise in the open air if possible. Pupils are entitled to this time.

The various activities of physical education should be so spaced as to provide the maximum relief from fatigue and for body building. Relaxation periods of from two to five minutes each should be placed between each two study or recitation periods. Windows should be opened and vigorous physical activities given.

Recesses, weather permitting, should always be out of doors. The activities at this time should be so organized that every child has desire and opportunity for safe, vigorous play suited to his age and strength. Where playground apparatus is available it should be regularly used under direction.

The recess period is primarily designed for play—a period of relief from desk work and conscious mental effort. But a recess period which simply turns pupils out into the school yard, does not begin to ac-

complish the desired results for the majority of the pupils. The more virile and aggressive children will monopolize the apparatus and the most desirable play space, while the more timid and less robust children, those who need the physical activity most, will stand about in groups, trying to keep out of the way, or hopelessly waiting for the turn which never comes. Many a teacher and principal has deplored this condition, but felt helpless to remedy it. The method sometimes tried of having the teachers in the yard or playground for so-called supervision, does not help very much. This supervision usually amounts to little more than policing. It does reduce the liability to accident, but does not appreciably help to secure activity for all. The only satisfactory solution is the thorough organization of the recess period.

When the grounds are large enough for all classes to be playing at once, a definite place on the grounds should be assigned to each class. Particularly desirable sections of the playgrounds, such as shade in hot weather, special play areas like the playground ball diamond, or soccer ball field, should be assigned to different groups in rotation. In cases where the grounds are very small, assign the play space to as many children as can be comfortably accommodated one day, to other classes the next, and so on, so that all are assured activity periods at some time. Those who cannot be provided with space for team games can have a free play period. Each teacher should take charge of her own class, whether it is assigned to apparatus or to definite play space. The seventh and eighth grade boys should be combined under the teacher of either grade, and the girls under the other. The same arrangement might profitably be made for grades five and six.

The games played should be those taught during the physical training period. The recess period is not long enough for the teacher to teach a new game, nor is the school ground filled with playing children quite enough for the teacher to make many explanations. It is much better to use some well-known game, and play it vigorously. Much time will be saved if the game to be played is decided upon before leaving the classroom. After a number of games have been learned it is a good plan occasionally to allow the children to choose the game for the day. Games should be chosen in which all actively participate, rather than those in which one or two perform, while the rest stand still.

Teachers will find that if they stop the play a few minutes before recess ends, allow the children to wash their hands and get a drink, and form lines and march to classrooms, the class will settle down to classroom work much more quickly and quietly than if the playing continues until the close of recess.

When weather conditions prevent following the schedule in the morning, the activities scheduled can often be carried out in the afternoon.

Many schools have found it helpful to use recess periods for running off contests, especially in districts where the children cannot remain after school to take part because of the necessity for catching the only train which will take them home, meeting transportation busses, etc. If the rather short recess time is to be effectively used for contests, schedules should be carefully worked out, and posted sufficiently in advance to allow for all necessary preparation.

On stormy days, the teacher will find indoor recess very trying if it is unorganized. If the teacher will lead her class in some quiet indoor game, the natural irritability which such a day usually produces will be greatly reduced, and the remaining portion of the day will be approached in a much happier state of mind by both pupil and teacher. All teachers should be familiar with Bulletin No. 29 prepared by the Department of Public Instruction.

8. Home Study

In the primary grades, home study should not be necessary. After the child has acquired the art of reading he should be permitted of his own choice to take books home and return them as he chooses to do. If any home study is assigned in the intermediate grades it ought to be very limited. It should deal with such informational subjects as history and geography, and the pupil should not be held responsible the next day for having done a definite amount of work. He should be urged to read in these branches, after he can read to advantage. Where departmental teaching is the plan, teachers need to be especially cautious lest the pupils be overburdened with assignments for home work.

9. Correcting Papers

In the elementary years the teacher should have but a reasonable amount of work to do in correcting papers. More effective results can be secured by having much of the written work done on the blackboard. The preparation of manuscript, however, is of great importance and when written work is taken up it ought to be made a distinct project or even and for that reason should not be of too frequent occurrence. When written work is done it should be well done and evaluated with care.

When papers are corrected the corrections had better be made in consultation with the pupils, especially the ones who need help. A few papers corrected and discussed with the class are worth many papers

marked by the teacher in her room at night and never discussed or revised.

10. Fire Drills

Fire drills should be regularly carried out in every school as required in the School Law. The discipline in fixing habits of self-control in unexpected conditions is of great value to the pupils both individually and collectively. In order to make their conduct proof against panic at an unusual time, these drills should be taken irregularly and unexpectedly on the part of the pupils. The purpose of the drill is not any more to insure speed than it is to insure a disciplined self-control in times of excitement.

The School Law defines what is to be done:

> Section 4701. Fire drill shall be periodically conducted, not less than once a month, by the teacher or teachers in charge, under rules and regulations to be promulgated by the city or county superintendent of schools under whose supervision such schools are—in which the scholars and teachers therein shall be instructed in, and made thoroughly familiar with, the use of the said fire escapes, appliances and exits—which said drill shall include the actual use of the same, and the complete removal of the scholars and teachers, in an expeditious and orderly manner, by means of said fire escapes and exits from the buildings to a place of safety on the ground outside.

F. SPECIAL SCHOOL DAYS

1. Arbor and Bird Days

Every school should carry out effective programs annually on the days designated for the conservation of plant and bird life. Actual planting of trees and shrubs and actual provisions for the protection and study of birds should interrupt the subject work of the schoolroom. The material distributed each year by the Department of Public Instruction on these special days should be utilized and preserved for later use.

The School Law reads as follows:

> Section 4001. That from and after the passage of this act, those several days of each year that may be set apart by the Governor as Arbor Days shall also be known as "Bird Day" in Pennsylvania, and it shall be the duty of every teacher in the public schools of this Commonwealth, under penalty of reprimand or dismissal, as the case may require, to devote, together with their pupils, at least two hours of such school day to the study of wild birds, and especially to

consider the value of the life-work of such birds to the people, and the best methods through which the conservation and increase of useful birds may be secured; and it shall be the duty of all school superintendents within this Commonwealth, either county, city, or otherwise, to see to it that the requirements of this act are complied with.

2. **Pennsylvania Day, March 4th.**

The School Law reads as follows:

Section 4003. The Governor shall annually issue his proclamation designating Pennsylvania Day and calling upon the public schools and the citizens of Pennsylvania to observe said day as a patriotic day. Said Pennsylvania Day shall be on the fourth day of March each year, unless such day falls on Saturday or Sunday, in which event the Governor may declare the preceding Friday or the following Monday as Pennsylvania Day. In pursuance to said proclamation of the Governor, suitable exercises having reference to the historic event of the granting of the Charter of Pennsylvania, by Charles II of England to William Penn, and the life and principles advocated by William Penn in founding Pennsylvania, shall be held in the public schools of the Commonwealth. Act of March 9, 1927, P. L. 20.

3. **Frances Willard Day**

The School Law reads as follows:

Section 4002. September twenty-eighth, or the school day nearest such day, in each year, shall be designated as Frances Willard Day, and in each school district and in each school a part of such day may be set apart for instruction in the life of, and the principles advocated by, Frances Willard.

4. **Patron's Day**

A special day in which patrons are asked to come to the school can result in great good, if planned wisely. The regular class work should go on during the hours of the school day. An evening session of school may be planned for the benefit of patrons unable to attend the exercises during the day. Whatever work is placed on exhibit should be the accumulated regular work of the school. Specially prepared work can scarcely be of much value. The public display of what has been done should be an incentive to do better work.

5. **School Entertainments**

When school entertainments are held they should be of such a character as to be educational. All literary and musical selections should be of a high grade and should represent the general trends

of the work in English and music. Preparation for such entertainments should not consume an excessive amount of time. The dramatization, story telling, recitations, and musical productions will, if properly done, be helpful in bringing about better work in these lines.

If entertainments are held for the purpose of making money for the benefit of the school in securing conveniences, the accounting for such money should be made official for the school.

G. SPECIAL PROVISIONS OF THE SCHOOL LAW

1. Religious or Political Test

Section 2801. No religious or political test or qualification shall be required of any director, visitor, superintendent, teacher, or other officer, appointee, or employe in the public schools of this Commonwealth.

2. Garb Act

Section 4801. That no teacher in any public school of this Commonwealth shall wear in said school or whilst engaged in the performance of his or her duty as such teachers, any dress, mark, emblem or insignia indicating the fact that such teacher is a member or adherent of any religious order, sect or denomination.

3. Humane Education

Section 1610. Instruction in humane education shall be given to all pupils up to and including the fourth grade, and need not exceed half an hour each week during the whole school term. No cruel experiment on any living creature shall be permitted in any public school of this Commonwealth.

4. Attending Motion Picture Theatres

Section 4401. That no owner, proprietor, or lessee, or the agent of such owner, proprietor, or lessee, of any moving picture theatre shall, during the term of compulsory attendance of public schools as fixed by the board of school directors in any school district, and during the hours and upon the days such schools are in actual session, admit or permit entrance into such moving picture theatre of any child or children between eight and fourteen years of age: Provided, That the provisions of this act shall not apply to any child or children accompanied by its or their parent or parents or other responsible adult, nor to any such child or children presenting a permit signed by the teacher of such child, which permit allows such child or children to be absent from school during school hours and permits admission to the moving picture theatre. Such permit shall be retained by the owner, proprietor, lessee, or agent, and shall be preserved for a period of six months.

5. Cigarettes

Section 4502. Any minor, being in possession of a cigarette or of cigarette paper, and being by any police officer, constable, juvenile court officer, truant officer, or teacher in any school, asked where and from whom such cigarette or cigarette paper was obtained, who shall refuse to furnish such information, shall be guilty of a misdemeanor; and upon conviction thereof, before any alderman, magistrate, or justice of the peace, such minor being of the age of sixteen years or upwards, shall be sentenced to pay a fine not exceeding five dollars, or to undergo an imprisonment in jail of the proper county not exceeding five days, or both. If such minor shall be under the age of sixteen years, he or she shall be certified by such alderman, magistrate, or justice to the juvenile court of the county, for such action as to said court shall seem proper.

6. Instruction in the Constitution of the United States

An act of the General Assembly of 1923, makes these provisions:

Section 1. Be it enacted, That in all public and private schools located within the Commonwealth, commencing with the school year next ensuing after the passage of this act, there shall be given regular courses of instruction in the Constitution of the United States.

Section 2. Such instruction in the Constitution of the United States shall begin not later than the opening of the eighth grade, and shall continue in the high school course and in courses in state colleges and state universities, and the educational departments of state and municipal institutions, to an extent to be determined by the Superintendent of Public Instruction.

H. THE SCHOOL AND THE COMMUNITY

1. School Spirit

Every district is interested in the success of its school. This cannot be brought about by any single factor, though by far the greatest influence back of a good school spirit is the attitude of the teacher toward her pupils and patrons and toward the general situation under which she finds herself working. By taking the lead in team work, and by industrious, patient, and courteous effort she will arouse that spirit of loyalty necessary to the success of the school.

2. Use of School Property

In order to make the school building and grounds of greatest service to the community as a whole, the School Law grants to school directors the following privileges:

Section 627. The board of school directors of any district may permit the use of its school grounds and buildings for social, recreation, and other proper purposes, under such rules and regulations as the board may adopt, and shall make such arrangements with any city, borough, or township authorities for the improvement, care, protection, and maintenance of school buildings and grounds for school, park, play, or other recreation purposes, as it may seem proper, and any board of school directors may make such arrangements as it may see proper with any officials or individuals for the temporary use of school property for schools, playgrounds, social, recreation, or other proper educational purposes, primaries and elections.

3. School Building

The school building should be made the common meeting center of every community. Organizations engaged in the promotion of public enterprise and the advancement of community interests should be encouraged to make use of school buildings. The schools are the property of the people and should be made to serve more and more the people's interests. Auditoriums should be in constant use for lectures, dramatic performances, community musicals (vocal and instrumental), forum activities, and civic club, town improvement, parent-teacher, and boy and girl scout meetings. Gymnasiums, libraries, and playgrounds should be thrown open to the residents of the school community who toil during the day. In fact the school building should be the center from which everything educational and recreational emanates.

4. Principal and Teachers

The attitude of the principal or teacher of a school undoubtedly sets the pace for the whole school. He is the educational leader of the district. His vision, his enthusiasm, and his good judgment will make the school what it is designed to be in every district of the state.

Principals and teachers should be leaders and active workers in all these activities. They are vital agencies in promoting and developing the aims for which the schools have been instituted. Communities become attractive in proportion as citizenship advances and atmosphere improves. Principals and teachers who are part of community organizations through which mutual coöperation is established may help to develop an asset that means success to any school system.

II. PUPILS

The pupil and his welfare are of the first concern in the school. Whatever is done in management and method should be done from

the point of view of its service to the boys and the girls who are in attendance. In such questions as classification, based on promotions and on transfers from other schools, the pupils should be given every advantage. The life of the school as a whole should appeal to the pupil and lead him to like the work and to do it with zest.

A. ADMISSION TO SCHOOL

1. Beginners

Beginners are admitted to school in accordance with this provision of the School Law:

> Section 1403. Unless otherwise directed by the board of school directors, the admission of beginners to the public schools shall be confined to two periods, namely, during the first two weeks of the annual school term, and during the first two weeks of school following the first day of January in any school year: Provided, That beginners becoming six years of age after the beginning of the school term, and before the first day of January of any year, shall be admitted during the period at the beginning of the school term, and beginners becoming six years of age between the first day of January and the close of the term shall be admitted during the period following the first day of January: Provided further, That the board of school directors in any school district may fix such other periods for the admission of such beginners as it may determine.
>
> The term beginners as used in this section, shall mean any child that could enter the lowest grade of the primary school or the lowest primary class.

2. Vaccination

The School Law is as follows:

> Section 4601. It shall be the duty of all school directors, superintendents, principals, or other persons in charge of any public, private, parochial, or other school to refuse the admission of any child to any of said schools under their charge or supervision, except upon a certificate signed by a physician, setting forth that such child has been vaccinated and that a subsequent examination reveals a resulting cicatrix indicating successful vaccination, or that vaccination has been performed according to the rules and regulations promulgated by the Commissioner of Health, with the sanction and advice of the Advisory Board of the Department of Health, or that it has previously had smallpox. All certificates of vaccination shall be issued in accordance with the rules and regulations promulgated by the Commissioner of Health with the sanction and advice of the Advisory Board of the Department of Health.

B. ATTENDANCE

All attendance regulations and requirements are based on the rights of pupils and are carried out in their interests: In carrying out the attendance sections of the School Law certain definite obligations are placed on school directors and their officers, on teachers, and on parents.

1. Census of Pupils

It is required by law that a census of all pupils in the district between six and sixteen years of age be made annually between April first and September first by the directors of each district in a book provided by the Department of Public Instruction.

2. Assignment to Schools

The directors shall, after this census has been made, assign upon an assignment sheet to one of the schools of the district all pupils thus enumerated. This assignment list shall be in the hands of each teacher not later than the first day of school.

3. Reports

The teacher shall then record in the attendance register, as directed therein each name contained on the assignment sheet. The teacher shall keep an accurate account of the attendance of each pupil in the register and shall, not later than the third day of each calendar month, forward to the principal, county or district superintendent a monthly attendance report—FORM ARI.

All other blank forms contained in the register should be forwarded at the specified time to the proper official.

District superintendents will forward a monthly summary report of attendance, and county superintendents will forward all monthly attendance reports to the Department not later than the fifteenth of the month following the month for which the report is made.

Each school district shall forward quarterly to the Department a report of all minors between fourteen and sixteen years of age employed in said district and of all such minors having their legal residence in their district but employed in another district.

> Section 1436. Every school district shall report to the Superintendent of Public Instruction upon the enforcement of the provisions for compulsory attendance and the cost thereof, in such detail as said Superintendent of Public Instruction shall request.

4. Teachers

The School Law through the Department of Public Instruction imposes on teachers the following duties in regard to the attendance of pupils:

a. *Records.*

(1) Count as belonging to her school all pupils between six and sixteen years of age who have been assigned to her by the proper school officials of the district.

(2) Drop a name from her roll for one of the following reasons only: (a) is deceased, (b) has removed from the district, (c) is enrolled in another school, (d) is legally employed upon a general employment certificate or an exemption permit, (e) is sixteen years of age or over and has withdrawn from school, (f) has been certified by the medical inspector as permanently incapacitated and not a fit subject for education and training, (g) holds superintendent's certificate showing the completion of the work of the elementary school, resides two miles or more from any high school and transportation is not provided.

(3) Enroll but count as absent pupils between six and eight years of age who do not enter school.

(4) Require a written excuse, dated and with the reason stated, for all absence and tardiness. Such excuses should be classified as lawful or unlawful, be filed alphabetically and be preserved until the opening of school the following year.

(5) Keep an accurate and careful record of attendance of all pupils in the attendance register provided by the Department of Public Instruction.

(6) Keep the attendance register at the school for inspection by a supervisor from the Department of Public Instruction or by the county superintendent.

b. *Reports.*

(1) Report to attendance officer, superintendent, supervising principal or secretary the names of all pupils who have been absent three days or their equivalent during the term without lawful excuse. (Only three days are allowed by law for unexcused absence during the whole term before the notice must be served upon the parents). Report promptly thereafter each unlawful absence of such pupils.

(2) Forward to superintendent or supervising principal a transcript of her monthly attendance report.

(3) Forward to the superintendent, principal, teacher or secretary of the proper district a transfer card for each pupil who moves from the district. (If the name and address of the superintendent, principal, or secretary cannot be determined, the transfer card should be sent to the Department of Public Instruction.)

(4) Report to the Department of Public Instruction when attendance cannot be secured by action of the local school board.

5. Directors

a. *General Enforcement of Attendance.* The board of school directors is responsible for the general enforcement of the attendance provisions of the School Law. In discharging this responsibility they are to employ attendance officers in first, second, and third class districts. In fourth class districts they may employ such officers. When no such officer is employed in a fourth class district the secretary of the school board is held responsible for the enforcement of the compulsory attendance act.

b. *Special Cases.* If a board of school directors deem it advisable they may excuse a child for a continuous period from attending school. This, however, may be done only when proof is furnished that the child is mentally, physically, or for other urgent reasons, unfit to do regular school work. The directors are to report to the medical inspector of the district for examination the names and addresses of pupils thought to be mentally or physically handicapped.

They are further to report to the following agencies the name of any pupil who is prevented from attending school on account of lack of food or clothing: (1) any local relief agency, (2) overseer of the poor, (3) county commissioners, (4) Supervisor, Mothers' Assistance Fund, Pennsylvania Department of Welfare, Harrisburg.

6. Attendance Officer

The attendance officer of a school district occupies a very important place in the community life. To him is delegated by the school board the authority to enforce the compulsory school law. Upon his judgment and tact rests the operation of the law. The attendance officer is given full police power as to truants or incorrigible and insubordinate pupils at school or on the way to or from school. He has full authority also to inspect employment certificates of minors between the ages of fourteen and sixteen years in the places where they are employed.

The attendance officer should have had at least the educational training offered by the completion of the work of the elementary schools. A person who has completed the high school course will, other things being equal, make a better attendance officer, while many cities are employing college graduates to act in this capacity. The attendance officer should be a person of force, tact, and intelligence. A woman possessing these qualifications may be selected for this position as well as a man. The attendance officer is one of the most important of school officials. It is he who must help to bridge the gap between the home and the school.

An amendment to the school attendance law permits directors to employ a home and school visitor instead of an attendance officer, provided said visitor is duly certificated by the Department of Public Instruction.

7. Employment Certificates

a. *How Issued.* The district superintendent or supervising principal shall issue all employment certificates, permits, and age certificates or deputize in writing some other school official to perform that duty. In districts which have no superintendent or supervising principal, the secretary of the school board shall issue all general employment certificates, permits for farm and domestic service, and age certificates or deputize in writing some other school official to perform that duty.

The law provides that before the issuance of any employment certificate the applicant must present a certificates of physical fitness signed by a physician approved by the board of school directors of the district in which the minor resides, stating that the pupil has been thoroughly examined and is physically qualified for employment. An amendment to the child labor law requires the school board or the State to employ a physician to conduct the specified physical examination.

The law further provides that the certificate shall set forth that the "said minor has completed a course of study equivalent to six yearly grades of the public school, in the English language, spelling, reading, arithmetic, geography, and history of the United States. Such school record shall also give the full name, date of birth, and residence of minor, and the name and residence of the parent, guardian or custodian, as shown on the records of the school."

b. *Use of Certificate* A minor between the ages of fourteen and sixteen years who holds a general employment certificate or exemption permit, and who is regularly employed, is not required to attend the regular day school. He must, however, attend continuation school eight hours per week. An emergency permit for domestic or farm service exempts the holder from attendance at day school for the period for which the permit is issued.

C. CLASSIFICATION

1. How Made

The provisions of the law as they relate to the classification and promotion of pupils are here given:

> Section 1611. Teachers in the public elementary schools in this Commonwealth shall, under the direction of the proper superintendents of schools, grade and classify the pupils

in their schools so that they may pursue the courses of study herein provided for, and all pupils found proficient may be promoted twice each year.

It is clear from this section of the School Law that in all fourth class districts, and in all third class districts that do not have district superintendents, the county superintendent is responsible for the classification of pupils.

Section 1613. The district superintendent, supervising principal, or secretary of the board of school directors in every school district in this Commonwealth, shall on or before the opening day of school in each term furnish to each teacher or principal in every school a true copy of the standing of each pupil in such school, together with the recommendation made thereon by the principal or teacher of said school at the close of the preceding term.

This class standing of pupils is part of the official records of the school and is to be contained in the monthly report book.

2. The Basis

The basis for classification of pupils in the first four years at least should be that of ability to read understandingly. In the years, above the fourth, other factors ought to be considered, the most marked one being that of ability in the work of arithmetic. In the classification of pupils, especially those who have been transferred from another school, the pupils ought always to be given the benefit of any doubt that is in the teacher's mind. It is certainly not fair to go on the assumption that the pupil has not had work as good as the work done in the school to which he applies for admission. He has a right to have fair and sufficient chance to show that he can do the corresponding work in the new school.

3. Promotions

These should be made as a matter of judgment of the teacher as well as of records of accomplishment. A grading system ought to possess a reasonable degree of flexibility. The pupil should always have the benefit of the doubt. The best rule to follow is to place the pupil in the grade where the school can do him the most good.

There can be no gain to the school and much loss to the pupil by retaining him at the end of a year on that year's classification. It is better to give him a new chance with fresh material. If a pupil happens to be above the average in ability he may need promotion at an irregular time. Such special promotion had better be made by

the principal of the school or on the advice of the proper superintendent.

4. Vacation Study

For pupils who desire to pursue of their own volition branches of study during vacation, the law takes the following provision as to textbooks:

> Section 704. The board of school directors in any district may allow any pupil in such district the use of school books during vacations, under such rules and regulations as it may adopt.

It is however, unwise to permit pupils to study in advance the work of the grade into which they are to go. Such advance study takes the edge off the interest of the work, and tends to superficiality. Summer study should be upon work of the grade just left or if a grade is to be skipped upon the work of that grade.

5. Admission to High School

Pupils who have completed the elementary course of study are entitled to attend high schools according to these provisions of the School Law:

> Section 1703. In all school districts there shall be admitted to the public high schools therein all children under the age of twenty-one years, residing within the school districts, who shall be found qualified for admission thereto, after having undergone such an examination as shall be prescribed by the board of school directors, subject to such rules and regulations as the Superintendent of Public Instruction shall prescribe, together with such additional pupils from other districts as are herein provided for.
>
> Section 1709. If any child has completed the elementary course of study in the public schools of the district in which he resides, and resides three or more miles, by the public road, from the nearest high school in said district, unless proper free transportation is furnished, he may attend any more convenient high schools in another district, without the consent of the board of school directors of the district in which he resides, and the district in which he resides shall be liable to the district whose high school he attends for the cost of his tuition, textbooks, and supplies, as provided for in this act.
>
> Section 1710. All pupils desiring to attend any high school outside the district in which they reside shall first satisfy the superintendent having supervision of the district in which they reside, as well as the superintendent or principal of said high school, of their fitness to enter the same.

Section 1707. Pupils residing in school districts in which no public high schools are maintained may attend, during the entire term, the high schools in other districts which are nearest or most convenient to their homes. If any district maintains a high school with a course less than a four year's course, pupils who have satisfactorily completed the same in the school of their own district, or have completed the equivalent of said course in some other school or schools, may attend, at the expense of the school board of the district in which they live, during the remaining years of a three or four years' course, the nearest or most conveniently located high school of such class as they may desire to attend: Provided, That pupils wishing to attend a high school in a district other than the one in which they reside shall obtain the consent of the board of school directors of the district in which such high school is located, before attending the same: And provided further, That where pupils desirous of having their tuition paid in a high school in another district, on account of having completed in a school or schools in another district the equivalent of a course in their own district, they must present to the board of their own district, and the board of the district in which they wish to attend, a certificate from the county superintendent who has jurisdiction over the district in which they live, that they have satisfactorily completed the equivalent of said course. County superintendents are hereby authorized and required to examine such pupils, and, if entitled, to issue to them the necessary certificates.

D. RELATION TO PENNSYLVANIA DEPARTMENT OF HEALTH AND ALLIED MATTERS

1. Medical Inspection

Section 1501 of the School Law makes compulsory the annual medical inspection of all pupils in the public schools of the first, second and third class, such inspection to be paid for by the board of education. It requires that this inspection shall be made in the presence of the parent or guardian of the pupil if the parent or guardian so requests. It also provides that the medical inspection should be made by physicians legally qualified to practice medicine in the Commonwealth, and who have had two years' practice of their profession. These physicians are employed by and paid such amounts as the boards of school directors may determine.

Section 1503 requires that in school districts of the fourth class the State Department of Health shall provide medical inspection for all pupils by proper medical inspectors, these to be appointed by the State Commissioner of Health at the expense of the State Department of Health. It makes the same requirements in regard to qualifications and salaries as does Section 1501.

Section 1504 provides that in every school district the secretary of the school board, or the district superintendent of schools, shall, on or before the first day of September each year, report to the Commissioner of Health the names of the medical inspectors, or the name of the chief medical inspector with the number of assistants employed. Failing this, it gives the State Commissioner of Health authority, after two weeks' written notice to the board of school directors, to appoint a properly qualified medical inspector. The commissioner fixes the amount of compensation of the same, which shall be paid by the district.

Section 1505 provides that medical inspectors shall at least once a year inspect and carefully test all pupils in the public schools of their district. Each medical inspector shall make to the teacher or, if the board of school directors so directs, to the principal or district superintendent of schools, a written report of all pupils found to need medical or surgical attention, giving careful directions concerning the care of each pupil while such pupil is in school. The section requires the teacher, principal, or district superintendent to keep such report until the end of the school year and requires that they shall send a copy of the Inspector's report upon each child to the parents or guardians thereof.

Teachers should follow up reported defects and try to persuade parents to have such defects remedied. The reports of the inspectors should also be carefully studied in order to make such adjustments and rearrangements of the pupils and their work as may seem wise.

Section 1506 provides that the medical inspector at least once each year and as early in the school term as possible make careful examination of all privies, water-closets, urinals, cellars, the water supply, and drinking vessels and utensils, and shall make additional examinations of the sanitary condition of the school building and grounds as he deems necessary, or as the regulations of the State Department of Health, or the rules of the board of school directors or of the local board of health require.

Section 1507 requires "the medical inspector to make promptly such reports to the Commissioner of Health as are required by him or by the regulations of his department, and such reports to the local boards of school directors as he deems necessary, or as are required by the Commissioner of Health or by the board of school directors. He shall perform such other duties as may be required by the health and sanitation laws of this Commonwealth or by the board of school directors."

Section 1509 provides that no person having tuberculosis of the lungs shall be a pupil, teacher, janitor or other employe in public

schools unless it be a special school specially provided for such cases, and carried on under regulations issued by the Commissioner of Health.

2. Communicable Disease and Quarantine

Section 5001 lists what diseases are specifically declared to be communicable, and grants to the State Department of Health authority to make additions to this list whenever they believe necessary and provides the process by which such addition may be legally made.

Section 5002 requires that placards shall be placed on all premises quarantined under the direction of an health officer of the State Department of Health for diseases listed in Section 5001, upon reports of the existence of any such diseases.

Section 5003 requires that said placards shall remain in place on the premises until the expiration of the quarantine period fixed by the health authorities and the recovery, death, or removal of the person or persons affected; and shall only be removed by the health officer. At that time he shall disinfect the premises.

Section 5004 sets the length of quarantine periods for various diseases, as follows:

> The quarantine period for anthrax, bubonic plague, cerebrospinal meningitis (epidemic), (cerebrospinal fever, spotted fever), Asiathic cholera, typhus fever, yellow fever, relapsing fever, leprosy, and whooping-cough shall be until the recovery, death, or renoval of the patient so suffering, and shall be determined in accordance with the rules and regulations of the health authorities. The quarantine period for small-pox (variola, varioloid) and scarlet fever (scarlatina, scarlet rash) shall be a minimum period of thirty days or until such time thereafter as the last person in the premises so suffering shall have fully recovered or until death or removal. The quarantine period for diphtheria (diphtheritic croup, membranous croup, putrid sore throat) shall be minimum period of twenty-one days or until complete recovery or the death or removal of the patient: Provided, That if antitoxin has been used for curative purposes for the patient and for the immunizing of all of the inmates of the premises, and two negative bacteriological cultures have been secured from the diseased area of each patient on the premises, for two successive days, the minimum period of quarantine may be fourteen days. The quarantine period for measles, German measles, chicken-pox, and mumps shall be for a minimum

Form 50-A

COMMUNICABLE DISEASES REQUIRING

EXCLUSION FROM SCHOOL (Public, private, Parochial, Sunday and other school.)		MINIMUM QUARANTINE PERIOD	DISEASE Medical Inspectors required to issue morbidity report to Health Officer for diseases marked (*).
CONTACTS (Unafflicted children in same household.)	PATIENT		
Until Health Officer's certificate of release from quarantine is presented. (Children known to have had Chicken Pox, Measles, G. Measles, Mumps and Whooping Cough may, on Health Officer's permit, continue school attendance from premises quarantined for same disease.) (a)	Until clinical recovery, and Health Officer's release from quarantine is presented.	During Illness	*Cerebrospinal Meningitis *(epidemic)* *(Cerebrospinal fever, spotted fever).*
		During Illness	*Relapsing fever.
		16 days. (b)	*Chicken Pox.
		16 days. (b) 16 days. (b)	*Measles. *German Measles.
		21 days. (b)	*Mumps.
		28 days.	*Whooping Cough.
		21 days. (c & d)	*Diphtheria *Diphtheritic and membranous croup, putrid sore throat.*
		30 days.	*Smallpox. *(Variola, varioloid).*
		30 days. (e)	*Scarlet Fever. *(Scarlatina, scarlet rash).*
		21 days.	*Anterior Poliomyelitis *(acute)* *(Infantile Paralysis).*
Exclusion of unafflicted children in same household not required.	Until certified by a Physician as incapable of transmitting the disease.	During Illness.	*Typhoid Fever. *(Paratyphoid).*
	Until Clean	Premises not quarantined	*Tuberculosis of Lungs *(Active).* *(See Sec. 1509 School Code.)* *Uncinariasis *(Hook Worm Disease).* *Trachoma *(Granular eye lids).* Acute Conjunctivitis *(Pink eye).* Tonsilitis. *Erysipelas. *Scabies *(itch).* *Impetigo Contagiosa *(pustular Inflam. of skin).* Ringworm *(Tinea Circinata).* Favus *(Crustaceous skin disease).* *Lupus *(Tuberculosis of the skin).* Head Lice or Nits. Body Lice.

Issued by the Pennsylvania State Department of

EXCLUSION OF PUPILS FROM SCHOOL

NON-IMMUNE CONTACTS REMOVED FROM PREMISES Non-immune contacts after taking a disinfecting bath and putting on clothing not exposed to infection may remove to premises occupied by adults or immune children and be ADMITTED TO SCHOOL UNDER THE FOLLOWING CONDITIONS
After fourteen (14) days.
After ten (10) days.
After sixteen (16) days. (a)
After fourteen (14) days. (a)
After twenty-one (21) days. (a)
After fourteen (14) days. (a)
After administering immunizing dose of antitoxin. In cities having laboratory facilities two negative cultures shall be required before admission.
Non-immunes not permitted to remove from quarantined premises.
After ten (10) days. If immune by virtue of a former attack may be admitted to school next day.
After fourteen (14) days.

(a) In case of Chicken Pox, Measles, G. Measles, Mumps, and Whooping Cough children who are immune by virtue of a former attack as shown by records of the Health Authorities, may attend school from quarantined premises on permit issued by the Health Officer.

(b) If patient is the only susceptible in the family, may be released upon clinical recovery anytime after ten (10) days. (Mumps regardless of time.)

(c) Quarantine to continue five (5) days after death or removal of patient except as provided under (d).

(d) Provided, "That if antitoxin has been used for curative purposes for the patient and for the immunizing of all of the inmates of the premises and two negative bacteriological cultures have been secured from the diseased area of each patient on the premises for two consecutive days, the minimum period of quarantine may be 14 days."

(e) Quarantine to continue ten (10) days after death or removal of patient if susceptible person in household.

(*) Inspectors required to issue morbidity report to Health Officer.

☞ Teachers or Principals in fourth class districts required to †exclude pupils showing symptoms of **communicable disease**, using form 43, and to report at once to Health Officer. (Sec. VII, Reg. Dept. of Health, Nov. 16, 1927 and Act June 28, 1923.) Children thus excluded can be readmitted only upon presentation of a Physician's certificate (**Board of Health Physician in Boros** having B. of H.) stating that they are free from any contagious or infectious disease or condition, or after quarantine, upon the Health Officer's certificate of release from quarantine.

The Attendance Officer must be notified if pupils who are excluded on suspicion of contagious disease do not forward Physician's report within 48 hours.

† In School districts of the **Second Medical Inspector** and readmitted only on his certificate. **Form 43** not used except in Townships.

☞ **Exclusions due to contagious disease must be entered on Health Record, Form 92.**

Health, School Division, Sept. 1, 1928.

period of sixteen days or until the recovery of the last person on the premises so suffering or until complete recovery or the death or removal of the patient.

Section 5005 and 5006 prohibit any person suffering from any of these communicable diseases from attending any place of amusement or any church or any public gathering or to be exposed on any public street or in any store, factory, or other place of business, or be permitted to attend any public, private, parochial, Sunday, or other school; and require that teachers, principals, and superintendents exclude any such person from the schools and prevent such children from returning until the case has recovered, the quarantine lifted, and the premises thoroughly disinfected. In case of a child or other person suffering from scarlet fever (scarlatina, scarlet rash) such exclusion shall continue for a period of ten days following the removal of quarantine and a thorough disinfection of the premises, subject to a certificate of complete recovery furnished to the health authorities by the attending physician.

Section 5007 forbids any child or other person residing on the same premises with other persons having these diseases to attend any of the places listed in Sections 5005 and 5006, and places the responsibility for exclusion upon teachers, principals, and superintendents.

Section 5008 permits, under certain restrictions, the return to school of any child or person residing on the same premises as any person suffering with a communicable disease.

Section 5009 provides that every teacher, principal, and superintendent shall exclude immediately from school any child showing the symptoms of any communicable disease, and that they shall report such fact to the health officer of the city, borough, or township, giving the name of such child or other person. The State Department of Health provides free the blanks for use in making such exclusions in *rural schools.* Teachers should keep a supply of these blanks on hand. Ask the Health Department for Form 43 if none among your supplies.

Section 5010 provides that no child or other person excluded from school under this act shall be readmitted thereto except upon written certificate signed by proper health authorities, setting forth that the conditions for such readmission prescribed by this act have been complied with.

Section 5012 requires local health authorities to furnish daily to superintendents, principals and teachers a printed or written bulletin containing the name, location and disease of any person suffering from any of the diseases comprehended by sections 5005 and 5006.

E. SPECIAL PROVISIONS FOR HEALTH

1. School Nurse

Section 1508 makes provisions that any board of school directors may employ one or more school nurses, who shall be graduates of reputable training schools for nurses, and shall define their duties. Adjoining school districts may establish a joint department of school nursing in accordance with the provisions of Article XVIII of the School Laws. All work performed in or in connection with the public schools must be under the control and supervision of the school authorities.

School nurses so employed fall under the same salary privileges as do other teachers provided that such nurses are regularly engaged as a full time occupation and are properly certificated. See Act 83, 1929.

2. Clinics

Section 1511 makes provision for school clinics. It reads that any school district may provide for the care and treatment of defective eyes and teeth of all pupils of its public schools.

3. Special Schools for the Tuberculous

Section 1512 authorizes boards of school directors to establish special schools for pupils having tuberculosis of the lungs and to provide such pupils with food, clothing and transportation necessary for attendance thereat. The section reads that whenever any board of directors of any school district shall establish any special school for pupils having tuberculosis of the lungs, such district may provide such pupils with the food, clothing, and transportation necessary for attendance thereat.

4. Dental Hygienist

The law reads that the dental hygienist must be nineteen years of age, or more, of good moral character, and must have completed a four year high school course or its equivalent as approved by the Bureau of Professional Education of the Department of Public Instruction. He must further hold a certificate from some recognized institution that he has successfully completed one year of dental work approved by the Dental Council.

This offers opportunity to boards of education to make provision for cleaning the mouths of children and special technical instruction in mouth hygiene.

F. OFFICIAL RECORDS

The School Law requires two particular types of records to be kept by the teacher or principal as indicated in these sections:

1. Proficiency Record

Section 1612. In school districts of the second, third and fourth class every teacher in the public elementary or high schools shall make and keep a proper record of the work and progress of each pupil, and at the end of each term shall include, in the last monthly report required from such teacher by the provisions of this act, the grade of proficiency of each pupil and his standing in the several branches pursued by him in said school, as well as the conduct of such pupil, together with such recommendations for his promotion or retention for additional preparation as such teacher deems just and proper; and until his record and report as herein required shall have been examined and approved by the district superintendent, supervising principal, or the secretary of the board of school directors, no teacher shall be paid any salary for the last month of his term.

2. Monthly Report

Section 1614. In school districts of the second, third and fourth class, every teacher employed in the public schools in this Commonwealth shall, at the end of each school month, or within five days thereafter, make a report for the past month to the board of school directors in the district, such report to state correctly the number of days the schools were kept open, and, if closed on any days, the reason therefor, the number, age and sex of all pupils, and the number of days attended by each. Such reports shall be made on blank forms to be furnished the teachers by the board of school directors, and no teacher shall be paid until such report is made; such reports shall be filed with the secretary of the board and shall at all times be open to inspection by the public; Provided, That any school principal may make such report for the entire school.

3. Vaccination and Physical Record

An accurate transcript should be kept of all vaccination certificates as a permanent record for the school. A vaccination certificate is not the property of the teacher or school; it is the property of the child's parents and should be returned to them after it has been recorded.

A physical record card showing the results of the physical examination made by the school physician should be made out for every pupil. This card should be of a type which has space allotment for carrying the child's physical record throughout his public school course.

Form 92, issued by the State Department of Health and now in use in all schools throughout the state, provides this type of record. The teacher should, at the opening of the school term, see that blank cards are secured if none are at hand for all new entrants. Fill in the heading of this card with name, sex, color, nativity, grade, age, etc. Record the date of Certificate of Successful Vaccination and the name of the vaccinating physician, providing the *certificate is in legal form,* the form prescribed by the State Department of Health, Form 75. Any change in the printed form of this Certificate renders the Certificate void and such Certificate should not be accepted by the teacher. Legal certificates of vaccination should not be returned to pupils until such complete entry has been made. These cards then become a part of the permanent school record of the child and should be properly filed so as to be on hand when the medical inspection is made so that the School Medical Inspector makes his entries annually on said card.

Health Record Cards must be *permanently kept in the schoolroom.* They should never be allowed to be taken out of the schoolroom or office and should be carefully filed at the close of the school term so as to be on hand for the teacher at the opening of the following term. When the pupil leaves the school the card should be forwarded to the teacher of the new school or grade or to the High School the pupil is attending.

4. Future Value of Health Record

After pupils have left school or graduated from High School the Health Record, Form 92, of such pupils should be permanently filed, preferably in the Principal's office, for future reference. This record may prove a valuable asset to the pupil ten or fifteen years after he or she has left school. The State Department has frequent calls from young men and women for a copy of their school health record ten or fifteen years back, when through some accident in their place of employment it becomes necessary for them to present proof of their previous physical condition in order to establish their claim for compensation. The only thing the Department can do in such a case is to refer them to the Health Record files in the school they last attended. You can, therefore, readily see the importance of maintaining a permanent file of these records. It should be made a part of the permanent school record of the child.

5. Official Communications

All official communications made by a principal or teacher to school directors or other officials or to the parents or pupils should be dated and signed. A record of these, if they are not written in duplicate,

in the nature of a transcript or memorandum, should be kept on file at the school building.

III. TEACHERS

A. CERTIFICATION OF TEACHERS

1. General Qualifications

The school laws specifically require that every teacher must be:

a. At least eighteen years of age.
b. Of good moral character.
c. In sound physical and mental health.
d. Not in the habit of using narcotic drugs or intoxicants.

All certificates are issued on credentials of approved preparation. Examinations will be held only when it is impossible to evaluate credentials.

Courses completed through correspondence after September 1, 1932, will not be accepted for credit in the discharge of the certification regulations.

All certificates valid in day schools are equally valid in evening schools except where the scope is specially restricted.

Certification will be denied where an applicant is markedly deficient in the use of English, either oral or written.

2. How to Apply for a Certificate

Secure from the Department of Public Instruction a Certificate Application Blank and an Approved Training Certificate for each institution of post-high school grade attended.

The Approved Training Certificate must be filled out by a responsible official of the institution attended, the seal of the institution placed thereon and returned to the Department of Public Instruction by the applicant with the Certificate Application Blank properly filled out.

All of the information requested must be supplied in order to insure evaluation of credentials.

Responsibility for the filing of credentials rests with the applicant.

3. Kinds of Certificates

The minimum qualifications required by law to entitle a teacher to the full benefits of the salary schedule include not less than graduation from a State Normal School of this Commonwealth or equivalent approved preparation.

All persons holding one of the following certificates shall be considered to have these minimum qualifications:

Provisional College Certificate
Permanent College Certificate
Normal School Certificate
Normal School Diploma
Special Temporary Certificate
Special Permanent Certificate
Permanent State Certificate
Standard Certificate

Certificates hereafter to be issued shall be of the following kinds:

a. *Standard*

(1) Temporary Standard
(2) Permanent Standard

b. *Normal*

(1) Certificate
(2) Diploma

c. *College*

(1) Provisional College
(2) Permanent College

d. *Extension Standard*

(1) Temporary Extension Standard
(2) Permanent Extension Standard

e. *Emergency*

Only persons holding standard, normal or college certificates as above shall be considered to have the standard qualifications.

4. Professional and Academic Subjects

Professional subjects include all studies relating specifically to the art and science of teaching such as Educational Psychology, History of Education, Methods Courses, Educational Sociology, etc.

Academic subjects include such studies as are commonly designated content courses and are not specifically related to the art and science of teaching. Such subjects as English, History, Latin, etc., are usually considered academic. Content courses given with a distinctively professional objective and organization may be considered professional.

5. Standard Certificates

(1) *Temporary Standard Certificate*

This certificate is issued by the Superintendent of Public Instruction and entitles the holder to teach for a period of two years the sub-

jects prescribed for the curriculum of the elementary school or such subjects as may be specifically written upon its face in either the elementary or secondary field of education.

Applicants for this form of certificate must have completed an approved four year high school curriculum, or approved equivalent education, and two years, or the equivalent of professional preparation for teaching.

Temporary standard certificates, valid to teach in a junior high school or a senior high school will be issued in the following fields only, namely: Art Education, Commercial Education, Health Education, Vocational Education, and Music; provided that

(a) After September 1, 1931, no temporary standard certificate will be issued or validated for the secondary field except where three years of approved post-high school preparation shall have been completed. Observation, participation, and practice teaching of not fewer than six semester hours or its equivalent must be a part of the required preparation;

(b) After September 1, 1932, the temporary standard certificate will be issued or validated for the secondary field only upon completion of four years of approved post-high school preparation;

(c) In the vocational field approved experience may be accepted in discharge of a part of this requirement.

Applicants for this form of certificate in the elementary field, who have entered the teaching profession subsequent to September 1, 1922, must submit evidence of the satisfactory completion of the following courses:

Art	3	semester	hours
Music	3	"	"
Health	3	"	"
School Efficiency or equivalent	3	"	"
Introduction to Teaching	3	"	"
Child Psychology	3	"	"

One of the following:

Teaching of Reading	3	"	"
Teaching of Social Studies	3	"	"
Teaching of Geography	3	"	"
Teaching of English	3	"	"
Teaching of Mathematics	3	"	"

Credit to the extent of twenty-five semester hours for post-high school work of academic (non-professional) character, will be accepted toward the seventy semester hours required for the standard certificate.

The first renewal of this certificate is dependent upon a rating of "low" or better. Subsequent renewals require a rating of "middle" or better.

(2) *Permanent Standard Certificate*

This certificate will be issued by the Superintendent of Public Instruction to the holder of a temporary standard certificate or its equivalent at the end of any renewal period on a rating of "middle" or better and evidence of four years of successful teaching experience.

In art education, commercial education, health education, vocational education, and music, not fewer than three years of approved preparation in the specified field in addition to graduation from an approved four year high school, shall be required for a permanent standard certificate: provided, however, that temporary standard certificates issued after September 1, 1931, on the completion of not fewer than four years of approved post-high school preparation, will be made permanent at the end of any renewal period on a rating of "middle" or better and evidence of four years of successful teaching experience; and provided further that in the vocational field approved experience may discharge this regulation in part.

6. Normal

(1) *Certificate*

This certificate is issued only to graduates of the Pennsylvania State Normal Schools or State Teachers' Colleges, who have met full requirements for admission to and graduation from a prescribed two-year curriculum in the field of elementary education or from the three-year junior high school curriculum. This certificate if based upon the two-year elementary school curriculum, is a license to teach in any public elementary school for a period of two years, or if based upon the three-year junior high school curriculum, is a license to teach for a period of two years in any junior high school the subject or subjects indicated upon its face.

A normal equivalent certificate will be issued to the graduates of the teacher training schools in districts of the first class approved by the Superintendent of Public Instruction. The holder of this certificate is entitled to teach for two years in any public elementary school. This certificate may be renewed once upon a rating of "low" or better.

(2) *Diploma*

This certificate is issued only to graduates of the two or three-year curricula of the Pennsylvania State Normal Schools or State Teachers' Colleges who since graduation have taught successfully for two years in the public schools of this Commonwealth with a rating of "middle" or better. A normal equivalent diploma will be similarly issued to the holders of normal equivalent certificates.

The holders of these certificates are entitled to teach for life in any public elementary or junior high school of this Commonwealth subject to the limitations of the certificate regulations herein set forth.

7. College

(1) *Provisional College Certificate*

This certificate entitles the holder to teach for three years in any public high school of the Commonwealth the subjects indicated on its face, and to teach in the elementary field where the applicant is the holder of a certificate for teaching in this field or has completed an approved curriculum in a school of education in preparation for teaching in such field.

Such a curriculum will be approved when the six semester hours of prescribed electives are in the field of elementary education and the six semester hours of practice teaching are with pupils of elementary school age.

The applicant for this certificate must be a graduate of an approved college or university and must have successfully completed at least eighteen semester hours of work of college grade in education distributed as follows:

Introduction to Teaching	3 semester hours
Education Psychology (General Psychology is a prerequisite)	3 semester hours
Electives in Education selected from the following list	6 semester hours

Secondary Education
Elementary Education
School Efficiency
Special Methods
School Hygiene
Educational Administration
Educational Measurements
Educational Sociology
Educational Systems

History of Education
Principles of Education
Educational Psychology
Technique of Teaching
Practice Teaching in the Appropriate
Field .....6 semester hours

The practice teaching requirement may be met by one hour a day of observation and practice teaching with one hour a week of conference in connection therewith for one half year.

Three years of successful teaching experience in the field in which certification is sought, together with a teaching rating of "middle" or better, may be accepted as the equivalent of the practice teaching requirement.

Until September 1, 1931, the holder of this certificate will be certificated to teach subjects in which not fewer than twelve semester hours have been completed and after September 1, 1931, to teach subjects in which not less than eighteen semester hours have been completed.

The scope of this certificate will be extended to cover a field of learning when the distribution of the applicant's credentials so warrant.

This certificate may be renewed once on a rating of "low" or better plus six additional semester hours of work of college grade, one-half of which must be professional.

For the present, the six semester hours of practice teaching required for the college certificate and for the standard certificate may be met by presenting evidence of not fewer than six semester hours of observation, participation, and teaching under approved supervision and conference, not fewer than three of which shall be teaching under approved supervision and conference, during employment as a teacher in any school district. In order that credit may be received under this special plan the authorities employing the teacher seeking such certification must present in advance for approval the plan for meeting these requirements.

(2) *Permanent College Certificate*

The issue of this certificate is dependent upon the possession of the qualifications required for the provisional college certificate and in addition thereto three years of successful teaching experience in the appropriate field in the public schools of the Commonwealth with a teaching rating of "middle" or better and the satisfactory completion of at least six semester hours of additional preparation of collegiate grade, completed subsequent to the baccalaureate degree, one-half of

which must be professional and the remainder related to the subjects or subject fields in which the candidate is certified to teach.

The expression "in the appropriate field," in the preceding or any other paragraph, refers to the age levels of child-life commonly known as elementary and secondary. In this connection successful teaching experience with pupils of seventh and eighth grades may be considered to apply in either classification.

This certificate entitles the holder to teach for life in any public school of the Commonwealth the subjects indicated on its face.

8. Extension Standard Certificates

An extension standard certificate will be issued where the applicant desires to teach English and Citizenship to immigrants and to native illiterates when the applicant shall have discharged certain minimum requirements.

Extension standard certificates are of two kinds:

(1) *Temporary Extension Standard*

This certificate is issued by the Superintendent of Public Instruction upon the request of the local county or district superintendent under whose authority the applicant is to teach, and entitles the holder to teach English and Citizenship to immigrants and native illiterates in the designated county or district for a period of one year.

Applicants for this form of certificate must hold a valid standard certificate to teach in either the elementary or secondary field, or must have completed two years of post-high school education or its approved equivalent.

This certificate may be renewed for a period of one year upon a rating of "low" and evidence of the satisfactory completion of one semester hour of approved special preparation.

(2) *Permanent Extension Standard*

The issue of this certificate is dependent upon the possession of the qualifications required for the temporary extension standard certificate or its equivalent, and in addition thereto, at least two semester hours of approved special preparation one of which shall be in methods of teaching English to immigrants and the other in citizenship and related social sciences, and in addition thereto, shall have had four years of teaching experience, two of which shall have been upon the temporary extension standard certificate.

9. Emergency Certificates

This certificate may be issued by any county or district superintendent of schools of the state for a period not to exceed three months and may be extended for the balance of the current school year on the approval of the Superintendent of Public Instruction. Upon proper representation by a county or district superintendent setting forth a shortage of teachers for the said county or district, or other specific reasons, an emergency certificate may be further extended by the Superintendent of Public Instruction in the cases of persons who lack the requirements for standard certification.

The validity of this certificate is dependent upon filing with the Department of Public Instruction within three weeks of the date of the issue of any such certificate a proper record of the issue of this certificate on the form devised for this purpose.

This certificate entitles the holder to teach all the subjects prescribed for the elementary school curriculum, or if issued for high school teaching, the specific subjects written on its face.

The minimum salary prescribed by law for this certificate is seventy-five dollars a month.

10. Partial Certificates

The initial issue of the partial certificate was discontinued September 2, 1927, (see School Code Section 1210, Sub-Section 14).

All persons holding partial certificates on September 1, 1927, will be permitted to continue teaching on said certificates for the duration of the temporary period for which they were issued, and to have them renewed from time to time in accordance with the regulations of the State Council of Education until such certificates shall become standard; provided, that credit for teaching service subsequent to July 1, 1927 will not be granted.

A Partial certificate renewal may be validated for any county or district on the endorsement of the proper county or district superinendent.

(1) *Partial Elementary*

Prior to September 2, 1927, this certificate was issued by the Superintendent of Public Instruction upon the request of the local county or district superintendent under whose authority the applicant was to teach. The holder of a partial elementary certificate is entitled to teach in the designated county or district the subjects prescribed for

the elementary school curriculum until the first day of August following the date of issue.

The first renewal of this certificate is dependent upon a rating of "low" or better plus six semester hours of further professional preparation. Subsequent renewals require a rating of "middle" or better and six additional semester hours of professional preparation.

The partial elementary certificate will be converted into the standard certificate when the holder has the qualifications required for the standard certificate.

The minimum salary guaranteed to the holder of a partial elementary certificate is eighty-five dollars a month.

(2) *Partial Secondary*

Prior to September 2, 1927, this certificate was issued by the Superintendent of Public Instruction upon the request of the local county or district superintendent under whose authority the applicant was to teach. It entitled the holder to teach in the designated county or district until the first day of August following the date of issue, the subjects of secondary school grade written on its face.

The first renewal of this certificate is dependent upon a rating of "low" or better plus six semester hours of additional approved preparation. Subsequent renewals require a rating of "middle" or better and six additional semester hours of approved preparation.

The minimum salary guaranteed to a holder of this certificate is eighty-five dollars a month.

11. Miscellaneous Regulations

(1) *Certificate Endorsement*

The holder of a certificate issued by an authority other than the Commonwealth of Pennsylvania, the requirements for which are comparable to the requirements for a Pennsylvania certificate, may be granted a temporary certificate to teach in the public schools of the Commonwealth.

This certificate may be renewed or made permanent subject to the certification regulations herein set forth.

Applicants for the endorsement of certificates should secure and fill out the certificate application blank provided for this purpose and submit this blank together with the foreign certificate for adjudication.

(2) *Additional Branches*

Until September 1, 1931, in order to add a subject to a certificate in the secondary field credentials showing the satisfactory completion

of twelve semester hours of approved preparation must be presented; after September 1, 1931, eighteen semester hours of approved preparation will be required for the addition of a subject to a certificate.

(a) Distribution of Required Twelve Semester Hours.

Science—At the present time and until September 1, 1931, as set forth later herein, Science will be written on the face of a certificate when the applicant presents evidence of having completed twelve semester hours of approved preparation in Science, distributed as follows:

Physical Sciences 6 semester hours (3 s. h. Physics, 3 s. h. Chemistry); Biological Sciences 6 semester hours (3 s. h. Botany, 3 s. h. Zoology).

Where the applicant has completed twelve semester hours of approved preparation in the Physical Sciences, of which 3 semester hours must be in Chemistry and 3 semester hours in Physics, Physical Science will be written on the certificate.

Where the applicant presents twelve semester hours of approved preparation in Biological Science, including 3 semester hours in Botany and 3 semester hours in Zoology, Biological Science will be written on the certificate.

Social Studies—Social Studies will be written upon the certificate when the applicant presents evidence of having completed twelve semester hours of approved preparation in the Social Studies, distributed as follows:

Social Science .....6 semester hours
History .....6 " "

Where the applicant has completed twelve semester hours of approved preparation in Social Science, Social Science will be written on the certificate.

Where the applicant has completed twelve semester hours of approved training in History, History will be written on the certificate.

(b) Distribution of Required Eighteen Semester Hours.

Science—After September 1, 1931, a certificate of standard grade will be validated for the teaching of science upon the completion of 18 semester hours of approved preparation in science distributed as follows:

Physical Sciences, 9 semester hours including 3 semester hours in Physics and 3 semester hours in Chemistry.

Biological Sciences, 9 semester hours including 3 semester hours in Botany and 3 semester hours in Zoology.

Where the applicant presents 18 semester hours of approved preparation in Physical Sciences including 6 semester hours in Chemistry and 6 semester hours in Physics, Physical Science will be written upon the certificate.

Where the applicant presents 18 semester hours of approved preparation in Biological Science including 6 semester hours in Botany and 6 semester hours in Zoology, Biological Science will be written upon the certificate.

Social Studies—Social Studies will be written upon the certificate when the applicant presents evidence of having completed 18 semester hours of approved preparation in the Social Studies distributed as follows:

Social Science .....9 semester hours
History .....9 " "

Where the applicant has completed 18 semester hours of approved preparation in Social Science, Social Science will be written upon the certificate.

Where the applicant has completed 18 semester hours of approved preparation in History, History will be written upon the certificate.

(3) *Junior High School Certification*

(a) Certificates which are not restricted to the elementary field are valid for teaching in the junior high school.

(b) Holders of standard certification whose certificates do not authorize them to teach in the years covered by the junior high school may have this privilege added to their certificates upon presentation of a rating card showing successful experience in grades above the sixth: provided, that after September 1, 1932, in addition, four years of approved post-high school preparation must have been completed.

(c) Holders of standard certificates whose experience has been restricted to grades below the seventh, may qualify for teaching in the junior high school by the satisfactory completion of not fewer than 18 semester hours of approved preparation, not fewer than 4 semester hours of which shall have been in junior high school education and the remainder in a subject or subjects of the junior high scoool curriculum. Such certification will entitle the holder to teach such subjects in addition to the subjects prescribed for the elementary curriculum; provided, that after September 1, 1932, four years of post-high school preparation shall be required for teaching in the junior high school field.

(4) *Principal's Certificate*

The Principal's Certificate is not mandatory but the possession of this type of certificate indicates, in the judgment of the State Council of Education, minimum preparation for the type of position for which the certificate has been created.

(a) *High School*

This certificate will be issued to holders of permanent college certificates, or equivalent certificates, who have completed subsequent to the issuing of such certificates not less than two years successful teaching, supervisory or administrative experience, and in addition 12 semester hours in approved courses in the field of secondary school organization and administration.

(b) *Elementary*

This certificate will be issued to holders of permanent college certificates or equivalent certificates, who have completed subsequent to the issuing of such certificates not less than two years of successful teaching, supervisory or administrative experience, and in addition twelve semester hours in approved courses in the field of elementary organization and administration.

(5) *Certification of Continuation School Teachers*

Full time continuation school teachers shall present in addition to the minimum professional requirements satisfactory evidence of experience with pupils of continuation school age. The satisfactory completion of an approved training course may be required for the renewal of a certificate to teach in a continuation school.

All certificates to teach agriculture, art, commercial education, health education, home economics, industrial education, industrial arts, and music are equally valid for continuation schools.

(6) *Dating of Certificates*

The validity of any certificate may be extended by the Superintendent of Public Instruction until August 1, following the date when such certificate would otherwise expire.

(7) *Permanent Professional Certificates*

Professional certificates made permanent under Section 1308 of the School Code will be translated into permanent standard certificates, valid for use throughout the state upon application to the Department of Public Instruction accompanied by the original certificate.

(8) *Certification of Special Class Teachers*

Applicants for certificates in this field must hold a certificate of standard grade and present evidence of successful experience as a teacher together with not fewer than 20 semester hours of approved preparation in the field of special activities for which certification is desired.

(9) *Certification of Supervisors*

Supervisors of special fields must hold a certificate of standard grade indicating the completion of an approved supervisors' curriculum in the special field in which certification is desired.

(10) *Certification of Vocational Teachers*

Certificates to teach the vocational subjects require in addition to the minimum professional requirements satisfactory evidence of practical experience.

In order that the State and Federal funds for vocational education may be used for reimbursing the salaries of teachers of vocational subjects, such teachers must hold certificates on the face of which the word "vocational" has been written by the proper authorities.

(11) *Certificates for Guidance Counselors*

The certificate for Guidance Counselor is not mandatory but the possession of this type of certificate indicates, in the judgment of the State Council of Education, minimum preparation for the type of position for which the certificate has been created.

Applicants for certificates in this field must hold a certificate of standard grade and present evidence of not less than eighteen semester hours of approved preparation in this field.

(12) *Teachers' Ratings*

All Teachers' ratings shall be made by a supervisor, principal, superintendent, or officer of the Department of Public Instruction designated by the Superintendent of Public Instruction who has professional knowledge of the candidate. All teachers' ratings shall be evaluated by the Superintendent of Public Instruction.

The following scale represents the quantitative translation of the approved State Teachers' Rating Score Card: Lowest, 20-29; Low, 30-49; Middle, 50-69; High, 70-89; Highest, 90-100.

Wherever any school district shall develop a rating device which shall meet the approval of the State Superintendent of Public Instruction, this device may be used in lieu of the State Teachers' rating score card wherever these regulations call for the use of the said card.

(13) *Minimum Qualifications for Salary Increments*

The minimum qualification for the advancement on any salary schedule from the initial sum prescribed therefor to that prescribed for the first increment thereof shall be a rating in teaching on the state teachers' rating score card of "low" or better, and for each subsequent increment a rating of "middle" or better.

(14) *Professional Courses for Improvement of Teachers in Service*

Professional courses for improvement of teachers in service leading to higher certificates will be offered in extension and in summer sessions in each of the normal schools and state teachers colleges and in certain universities and colleges of the Commonwealth. Applications for any of these approved courses should be made to the several institutions approved for offering this service.

For all students beginning extension or correspondence courses on or after August 1, 1923, not more than six semester hours of credit toward a standard certification will be allowed in any one semester during which the student pursuing such courses is a regularly employed teacher.

(15) *Semester Hour*

A semester hour represents the amount of time given to a subject one hour per week, for one semester. The ordinary semester hour equals about 18 clock hours, and therefore a course of one hour per week for thirty-six weeks equals two semester hours.

In evaluating credit for summer work, a maximum equal to one semester hour for each week of approval work may be allowed for work done in a summer session.

(16) *High School Unit*

A high school Unit (Carnegie) represents a year's study in an approved standard secondary school, so planned as to constitute approximately one-fourth of a full year of work for a pupil of normal ability. To count as a unit, the recitation period shall aggregate approximately not less than 120 sixty-minute hours.

(17) *Teachers in Service*

Teachers in the service of the public school system prior to July 1, 1922, shall be given special consideration in connection with the regulations herein prescribed as provided below:

(a.) Permanent professional certificates restricted to the district for which they were issued, and teacher's permanent certificates in accordance with the provision of the law of 1867 shall be translated into permanent standard certificates.

(b.) Four semester hours of credit toward the Standard Certificate in the elementary field shall be allowed for each year of approved experience prior to July 1, 1927, and a rating of "middle" or better. If rating is below "middle" three semester hours shall be allowed. However, no credit shall be given for experience beyond fifteen years; provided that subsequent to July 1, 1930, no credit will be allowed for teaching experience toward the standard certificate except to meet the practice teaching requirement.

B. RETIREMENT

1. Membership in the School Employes' Retirement Association

The Pennsylvania School Employes' Retirement Association provides for the payment of retirement allowances to persons employed in any capacity in the public school system of the state. In order to be eligible for membership in the retirement association an employe must be regularly engaged in some work connected with the public school system as a full time occupation, outside of vacation periods. Substitutes and supply employes are not eligible for membership unless employed full time on a regular salary basis.

For the purpose of membership in the retirement association, school employes are divided into two groups—present employes and new entrants. All persons employed in any capacity in connection with the public school system prior to July 18, 1917, are called present employes; those employed, for the first time, since July 18, 1917, are called new entrants. Membership in the retirement association is voluntary for present employes, or persons employed prior to July 18, 1917; it is compulsory for new entrants, or persons employed for the first time since July 18, 1917.

2. Management of the Retirement System

The management of the retirement system is vested in a retirement board consisting of the Superintendent of Public Instruction; the State Treasurer; a member appointed by the Governor of the Commonwealth; three members of the State Retirement Association elected from among their number in a manner to be approved by the Superintendent of Public Instruction, the State Treasurer, and the member appointed by the Governor; and one member, not a public school employe nor officer or employe of the Commonwealth, who shall be elected annually by the other members of the board, to serve for a term of one year.

3. The Funds of the Retirement System

The Treasurer of the Commonwealth of Pennsylvania is designated by the retirement act as the custodian of all the funds created by the retirement system. The retirement board is charged with the responsibility of investing the funds in securities that are legal for the investment of the funds of saving banks. The funds of the retirement system, excepting the expense fund, are to be invested by the retirement board so as to permit each fund to be credited with interest at four per centum compounded annually.

A separate account is kept with each individual contributor and when an employe retires no part of his or her contribution to the

retirement fund will have been used to help pay the retirement allowance of another employe. This plan of keeping each employe's contribution to the retirement fund intact until retirement or withdrawal guarantees the creation of an adequate reserve fund and helps to assure the permanency and safety of the Pennsylvania retirement system.

4. Rates of Contribution of Employes

The age at which the employe becomes a contributor to the retirement fund determines the rate of his or her contribution. The rates of contribution have been computed on an actuarial basis, and are lower for men than for women because the mortality among men annuitants is higher than for women annuitants, resulting in a fewer number of payments to men and, consequently, is a reduction in the cost of the retirement allowance.

The rate at which an employe begins to contribute is computed to remain constant during his or her period of service.

Upon recommendation of its actuary the retirement board has adopted the following table showing the percentages of salary required of men and woman employes at different ages as their contribution to the retirement fund:

SCHOOL EMPLOYES' RETIREMENT ASSOCIATION
RATES OF CONTRIBUTIONS

Percentage of Salary Required			Percentage of Salary Required		
Age	Men	Women	Age	Men	Women
18	3.33	3.69	40	3.74	4.45
19	3.33	3.71	41	3.79	4.52
20	3.33	3.74	42	3.84	4.59
21	3.33	3.75	43	3.89	4.67
22	3.34	3.78	44	3.95	4.75
23	3.34	3.79	45	4.01	4.83
24	3.34	3.81	46	4.07	4.92
25	3.35	3.83	47	4.14	5.01
26	3.36	3.85	48	4.20	5.10
27	3.37	3.88	49	4.27	5.20
28	3.38	3.90	50	4.34	5.29
29	3.40	3.93	51	4.41	5.40
30	3.42	3.96	52	4.49	5.50
31	3.44	4.00	53	4.57	5.61
32	3.46	4.03	54	4.64	5.72
33	3.49	4.07	55	4.73	5.83
34	3.51	4.11	56	4.81	5.94
35	3.55	4.16	57	4.90	6.07
36	3.58	4.21	58	4.98	6.18
37	3.62	4.27	59	5.08	6.31
38	3.65	4.32	60	5.16	6.42
39	3.70	4.38	61	5.30	6.59

Retirement is optional at sixty-two years of age and no employe is required to contribute to the retirement fund after reaching this

age, even though the employe should continue in active service until seventy years of age when retirement is compulsory.

5. Duties of Employes

The retirement act makes it obligatory on the part of employes to coöperate with the retirement board by furnishing such information, keeping such records and performing such other duties as may be necessary in the organization and administration of the retirement system. A special circular of information outlining in detail the duties of employes in relation to the retirement system will be mailed to the secretary and treasurer of each school district, normal school, board of trustees or other employer as defined in the retirement act.

6. State Guaranty

Section 10, of the retirement act, provides that the regular interest charges payable, the creation and maintenance of reserves in the contingent reserve fund and State annuity reserves, and the payment of all retirement allowances and other benefits granted by the retirement board under the provisions of this act are made obligations of the Commonwealth of Pennsylvania.

7. Conditions of Withdrawal

The Pennsylvania retirement system provides for the return of all contributions with interest at four percent, compounded annually, to an employe who for any reason separates permanently from school service before reaching the retirement age. Should an employe die before retirement, the contribution to the retirement fund will be paid to his or her estate. Young teachers who expect to teach for a few years only will find the retirement fund a convenient and safe savings fund.

8. Disability Retirement Allowance

An employe with ten or more years of service who has become mentally or physically incapacitated for the performance of school service before reaching the age of sixty-two years, will receive an annual disability allowance of one-ninetieth of his or her average salary for the last ten years, multiplied by the number of his or her years of service. In no case will the disability allowance be less than thirty percentum of the final salary.

Example: Miss A, after thirty years of school service, becomes physically incapacitated to perform her school work.

Her average annual salary for the last ten years of service is $900; she will receive a disability allowance of one-ninetieth of $900, or $10, for each year of her thirty years of service, which gives her an annual allowance of thirty times $10, or $300.

If Miss A had become physically incapacitated for school work after only fifteen years of service, her allowance would be thirty per cent of $900, or $270, instead of fifteen times $10, or $150.

Should a disability annuitant recover and be restored to school service the rate of salary contribution which he or she shall make to the retirement fund will be the same as before disability.

9. Superannuation Retirement Allowance

All school employes who are contributors to the retirement fund may retire any time they may elect after reaching sixty-two years of age. Retirement is compulsory at seventy years of age. Should an employe wish to be retired before the age of seventy, he or she should make written application to the retirement board on a blank furnished for this purpose, stating the time he or she desires to be retired. Applicants for retirement should plan, if possible, to retire at the end of a school year when changes among employes interfere the least with school work.

On retirement for superannuation, an employe who is a contributor to the retirement fund will receive an annual retirement allowance of one-eightieth of his or her average salary for the last ten years, multiplied by the number of his or her years of service rendered prior to the age of sixty-two.

Example: Miss B, after forty years of school service has reached the retirement age and wishes to retire. Her average annual salary for the last ten years is $1000; she will receive a retirement allowance of one-eightieth of $1000, or $12.50 for each year of her forty years of service, which gives her an annual allowance of forty times $12.50, or $500. This allowance will be paid to her in monthly installments during the remainder of her life.

10. Amendments

The General Assembly has enacted two important amendments to the retirement act.

First, the time during which a member of the retirement system may be absent from school service without losing credit for previous service has been increased from three years to five years. This means that a

member of the retirement system may be absent from school service for a period of five years consecutively without losing credit for service already rendered.

Second, the date for filing an application for membership by present employes has been extended to July 1, 1928.

Should any school employe or other person desire further information regarding the Pennsylvania School Employes' Retirement System, it may be obtained by addressing the Secretary of the State Retirement Board, Harrisburg, Pennsylvania.

IV. BUILDINGS AND GROUNDS

A. BUILDING PLANS AND GROUNDS

1. Character of the Building

The planning of an elementary school building should be given more than casual consideration with respect to the size and arrangement of the class rooms, ways of egress, the sanitary equipment, the number and kind of special rooms it contains, and the accommodation of future additions which will not necessitate the remodeling of the initial structure. As strictest economy must be practiced in the planning and erection of school buildings, the selection of a competent architect familiar with the latest development in school building planning, design, and construction is essential, and is the most economical policy which can be adopted in erecting buildings of more than four rooms.

The building should be located on a large plot of ground as level as possible and composed of sandy soil free from excess moisture. Facilities for playing standard outdoor games and ample modern playground apparatus should be provided. School gardens should be encouraged and space provided for them. The proper landscaping of the site should be considered an essential part of every school building project.

It is important that the exterior appearance of the building be pleasing but the utility of the structure should not be sacrificed to obtain this result.

In addition to the necessary classrooms, the building should contain coat rooms or wardrobes connecting with classrooms but not with corridors, inside toilets, drinking fountains, playrooms or a gymnasium with the necessary shower and locker facilities, lunch rooms, teachers' rooms, office, library and assembly room. This latter room is especially important in rural communities where it may function as a social center.

Complete fire-resistive construction is desirable in the erection of all school buildings, from the standpoint of both safety and ultimate economy.

School buildings should have at least masonry exterior walls and wherever possible the corridor walls and floor should be of non-inflammable material. Frame construction should be considered only when finances cannot be produced for a better class of construction.

The erection of small units should be discouraged as the consolidation of rural schools has so many advantages which outweigh all other factors in the erection of school buildings.

2. Assistance from Bureau of School Buildings

The Bureau of School Buildings in the Department of Public Instruction furnishes upon request of a school district plans and specifications for buildings, of one, two and four rooms and suggestive sketches of buildings of larger types. A bulletin of rules and regulations for public school building construction is available for distribution. This Bureau is ready to consult with school boards, school officials, architects, or citizens to assist in solving any phase of their school building problems. Wherever it is possible a personal survey of the situation is made by the bureau and sketches of the proposed building are prepared.

The school law provides that plans for the construction or reconstruction of school buildings in districts of the second, third, and fourth classes in Pennsylvania must be submitted to the Bureau of School Buildings, Department of Public Instruction, acting for the State Council of Education, before contracts are awarded. This affords an opportunity to determine if the plans make proper provision for the construction, illumination, cubical contents, floor area, heating, ventilating, safety and sanitary features of the building, as required by the School Law.

A school building can be planned which provides these features, and yet, because of the arrangement of the component parts, it will not function adequately as a school plant. Each plan submitted, therefore, is scrutinized and recommendations are made to fit the school building to the needs of the educational organization to be accommodated; to minimize the difficulties of administrative and social problems; to provide for the proper circulation of the pupils and for the future expansion of the building; to eliminate waste space or superfluous construction; and to make the physical properties and equipment of the classroom such that they will aid in and not interfere with the instruction of the pupils.

In this manner the bureau is acting not only in its capacity to maintain the legal standard of school building construction but is also offering to the school districts of the state at no direct expense a complete consulting architectural and school survey service. The ultimate object of the bureau is to provide the maximum in modern school housing at minimum cost.

The Department of Labor and Industry is charged by law with the responsibility of requiring in school buildings certain construction and ways of egress, equipment, operation and maintenance and provides for the submission of plans for examination and approval.

The State Art Commission created by Act of the General Assembly is charged with the maintenance of proper standards of architectural design in the erection of all buildings for which public moneys are expended. The designs of school buildings therefore must be submitted to this commission.

The State Health Department, acting through the Advisory Health Board, is charged by law with the responsibility of making such reasonable rules and regulations as they deem necessary for the prevention of disease and for the protection of the lives and health of the people of the Commonwealth. Certain rules and regulations have been drafted and promulgated relating to sanitary regulations, sewage disposal, decaying matter, stagnant water, industrial waste and water supply. The water supply of school buildings and plans and specifications of sewage disposal systems must be submitted and approved by the State Health Department.

3. School Grounds and Their Use

Section 626 of the School Law provides that boards of school directors shall put the grounds about every school building in a neat, proper, and sanitary condition, and so maintain the same, and shall provide and maintain a proper number of shade-trees.

a. *Grading and Surfacing.* Grading and surfacing should be done as a part of the building contract and should always be reckoned as a part of the cost of providing school facilities.

If not already practically level, the ground should be graded. Where the area is large in proportion to the number using it, the best surfacing is sod or turf. It is possible to have a turf playfield kept in fairly good condition. This is practically impossible in small, much-used fields. Certain areas such as tennis courts, volley ball courts, and the like should be of hard surface construction.

Torpedo gravel (the small, round gravel) makes a fairly satisfactory surface for play, and when mixed with clay it is excellent from

every viewpoint. Gravel, sand, and cinders have the great advantage that they dry off very rapidly after a rain, so that the ground can be used practically all the time. A mixture of clay, loam and cinders is very satisfactory. Such a mixture, especially if thoroughly rolled, packs well, is springy, does not get dusty in dry weather and can be played on in the rain.

Hard-surfaced approaches to the building should be provided.

b. *Planting Trees is Essential.* Trees should be planted about the edges of the ground or grouped in the corners, if the area is ample. In addition to shade trees which should be at a distance from the building, additional beautification of the school grounds is recommended in the form of landscape gardening, artistic planting, lawns and gardens. Shrubbery should be placed in clumps and open spaces should be left for grass.

Hardy, or even annual vines, may be used for screening purposes. Bright-colored annual flowers, especially those that bloom in September, should be planted in borders.

Where space is ample a definite portion of ground should be set apart as a school garden for both vegetables and flowers. Use should be made of it and, if possible, the activities should be under the supervision of competent persons.

Intelligent planting and care of school grounds will be of aesthetic value to the community and will exercise a cultural effect upon the pupils of the schools. If school grounds and buildings are made beautiful people will become accustomed to the beautiful, will demand the beautiful, and will copy and produce the beautiful.

B. CARE OF SCHOOL PROPERTY

The proper maintenance of the school building should be given an important place in connection with the preparation of the school budget. Too often the value of buildings is permitted to depreciate unnecessarily because sufficient funds are not made available by the amount of the tax millage and because the need of periodical attention to repairs and modernization is not appreciated.

1. Repairs

Roofing, valleys, gutters, and spouting should be carefully examined annually during the summer months in order that the necessary replacements can be made and that damage to the interior of the building will not result from neglect. Plumbing fixtures and piping need very frequent inspection and adjustment; the comfort and health of the

pupils should not be jeopardized by permitting such necessary repairs to be postponed. Certain types of heating and ventilating apparatus necessitate a thorough annual inspection and renovation; other types should be similarly inspected at less frequent intervals. Classrooms, corridors, basements and the exterior wood and metal work of the building should be painted frequently. Floors and other woodwork which has deteriorated should be renewed.

2. Periodic Inspections

Periodic inspections should be made of the condition and repair of all masonry work.

3. Insurance

The fact that an average of one school building per day in the United States is lost by fire makes important the protection of the district from financial loss by means of fire insurance on all school buildings. Some recent school building fires in Pennsylvania indicate that even though some fire insurance is placed on a building it is not nearly sufficient to replace the structure. Periodical examination of the replacement value of school buildings should be made and the amount of insurance increased accordingly.

C. SANITARY CONDITIONS

1. General Provisions

Section 601 of the School Code provides that:

> The board of school directors of each district shall provide the necessary grounds and suitable buildings to accommodate all the children between the ages of six and twenty-one years, in said district, who attend school. Such buildings shall be constructed, furnished, equipped, and maintained in a proper manner as herein provided, suitable provisions being made for the heating, ventilating, and sanitary conditions thereof, so that every pupil in any such building may have proper and healthful accommodations.

Careful attention should be given to maintain the building and grounds in a clean, sanitary condition at all times. Scrubbing, sunning and airing are better than any form of fumigation. Feather dusters and all forms of dry sweeping and dusting should be prohibited. Dampened or oiled sawdust as a floor sweeping compound and oiled cloths for dusting furniture should be used.

2. Lighting

All windows should be hung so as to be easily opened. The glass should be kept clean. Window shades should be of a light tan color,

translucent and adjustable so that they may shut off any section of the window desired, thus keeping the sun's rays from shining directly upon pupils, desks, blackboards, or charts. If it is found impossible to have the shades of the adjustable type, the roller should be placed about six inches from the top of the window; this is high enough to shut out sunshine, and also permits the window to be lowered at the top without interfering with the adjustment or damaging of the shade. A cheerful surrounding should be created by use of a general color scheme for schoolroom decorations. Color should be used in a manner to obtain reflection with the maximum of diffusion. Glare from any source must be avoided. Dull flat finish is preferable instead of bright gloss finish for all work. The wood-work, furniture, floors and shades should harmonize in tone. Colors recommended for schoolrooms are: ceiling, ivory-white, pearl-gray or ivory; side-walls, light buff, bright sage and ivory tan, or silver gray and caenstone; dado base, cocoanut brown, forest green or buff stone and pale azure. The color combinations to be used in the order named, the warm colors for cool or northern exposures and the cool colors for warm or southern exposures.

A natural high grade slate, dull finish, solid color is the standard for blackboards. They shall not be placed beneath a window or between windows. It is preferable not to place them on the window side of rooms. Tacking or pinning space is desirable above the blackboard and adequate display panels should be provided separate from the blackboard in space not occupied by blackboards.

3. Heating and Moistening Air

> Section 619. No board of school directors in this Commonwealth shall use a common heating stove for the purpose of heating any school room, unless such stove is in part enclosed within a shield or jacket made of galvanized iron, or other suitable material, and of sufficient height, and so placed, as to protect all pupils while seated at their desks from direct rays of heat.

From the standpoint of health sufficient classroom moisture is essential. It is a factor in keeping the membranes of the nose and throat in a normal condition thereby lessening the danger from infectious diseases.

It is, therefore, necessary that a large evaporating pan be provided in conjunction with the ventilating type room heater in order to maintain sufficient moisture within the classroom.

The teacher should at all times keep the evaporating pans filled with water.

4. Ventilating

> Section 621. Every school building hereafter erected or reconstructed, whose cost shall exceed four thousand dollars ($4,000.00), or which is more than one story high, shall be so heated and ventilated that each school room and recitation room shall be supplied with fresh air at the rate of not less than thirty cubic feet per minute for each pupil, and which air may be heated to an average temperature of seventy degrees Fahrenheit during zero weather.

One-room buildings are generally heated and ventilated by using ventilating type room heaters. Windows adjustable at top and bottom (school law, Article VI, Section 620) and a vent stack leading direct to atmosphere are required. Wire glass deflectors, 10 inches high, placed at an angle at the sill line of the windows are recommended. The heater and fresh air intake to same should be placed on the windward side of the building, if possible. The capacity of the heater should be figured on the basis of six air changes per hour.

In buildings of more than one-room, a mechanical means of ventilating is recommended, the type of system to be selected by the board of school directors. Plans and specifications for the installation are to be prepared and submitted to the Department of Public Instruction for examination and approval as required by law.

5. Drinking Water

Pure drinking water in sufficient quantities should be provided in every school building. Pupils should be encouraged to drink freely of it. Directors are authorized by the school law to enter into contract for a supply of water.

Sanitary drinking fountains, attached to a pressure water system or to portable tanks of sufficient capacity, should be provided. There should be one bubbler for each seventy pupils. Where these are not installed, the teacher should insist that each pupil have his own drinking cup, even though he be required to make a paper one.

6. Toilets

The law not only demands that school directors in every district shall provide and maintain proper water closets, or outhouses, not less than two for each building where both sexes are in attendance, but makes special provisions in regard to their location, privacy, etc. It also directs the board of school directors to keep them in a clean and sanitary condition, and specifically provides that not less than ten days prior to the opening of any school terms, and oftener if necessary, they shall have them properly cleaned and disinfected.

Section 632. The board of school directors in every district shall, with every building used for school purposes, provide and maintain in a proper manner, a suitable number of water closets or outhouses, not less than two for each building, where both sexes are in attendance. Such water closets or outhouses shall be suitably constructed for, and used separately by, the sexes. When any water closets or outhouses are outside and detached from the school building, the entrances thereto shall be properly screened, and they shall, unless constructed at a remote distance from each other, have separate means of access thereto, and, if possible, for not less than twenty-five feet from such water closets or outhouses, such means of access or walks leading thereto shall be separated by a closed partition, wall, or fence, not less than seven feet high.

Section 633. The board of school directors shall keep all water closets or outhouses, used in connection with any school building, in a clean and sanitary condition, and shall, not less than ten days prior to the opening of any term of school, and oftener if necessary, have them properly cleaned and disinfected by the use of fresh dry-slacked lime, or other proper disinfecting material.

D. EQUIPMENT OF CLASSROOM

1. Provision for by Directors

Textbooks and supplies are provided in accordance with these sections of the School Law.

Section 701. The boards of school directors of each school district in this Commonwealth shall purchase all necessary furniture, equipment, textbooks, school supplies and other appliances for use of the public schools, or any department thereof, in their respective districts, and furnish the same free of cost for use in the schools in said districts. subject to such rules and regulations regarding the use and safe-keeping thereof as the boards of school directors may adopt. All furniture, equipment, books, school supplies, and other regulations regarding the use and safe-keeping thereof of any school district in this Commonwealth, for the use of the public schools therein, shall be purchased in the manner provided in this act.

Section 702. Textbooks adopted, under the provisions of this act, by any school district of the second, third, or fourth class, shall be continued in use for a period of not less than five years.

Section 703. All school textbooks, in school districts of the second, third and fourth class, shall be adopted by the board of school directors at any regular meeting between the first day of April and the first day of August following. Such books, so adopted, shall be provided for the use of the schools at the beginning of the school term next following: Provided,

That if in said school districts there shall be a district superintendent or supervising principal, such district superintendent or supervising principal shall report in which subjects new textbooks are needed, and after consultation with the teachers under his supervision, what textbooks should be adopted or changed, and unless by a two-thirds vote of the board an adoption or change of textbooks shall not be made without his recommendation: Provided further, that books, supplementary to textbooks regularly adopted, may be adopted and purchased for use in the schools at any time, such supplementary books to be adopted in the same manner as textbooks are herein required to be adopted.

2. Use of by Teachers

The responsibility for taking care of school property rests on the teachers and principal. Needed and serviceable equipment and supplies are at times carelessly used, or even destroyed. There can be no excuse offered for careless use of supplies and books.

Specific lessons should be given on how to open and use new books. Books and supplies should be regularly inspected by teachers. Teachers should also regularly inspect drinking, lavatory and toilet equipment.

3. Appearance of the Classroom

The walls of the schoolroom should be kept freshly frescoed or painted. Some mellow and attractive tint ought to be used. It certainly is the duty of the teacher or principal to see that the schoolroom is made attractive by the use of inexpensive decorations. There should be good pictures on every wall. The presence of flowers, gathered in season, will add a charm to a classroom that is worth while. Good housekeeping is absolutely necessary in making the life of a schoolroom attractive to children. Such housekeeping ought by all means to start at the teacher's desk which should serve as a model for neatness, orderliness, and an economical use of supplies.

4. School Library Standards

Each school district should establish and maintain a school library in accordance with the following standards:

a. *One-Teacher Elementary Schools.* A district should purchase annually for each school fifty library books until it has a library of at least two hundred volumes.

b. *Graded Elementary Schools.* School boards should adopt a liberal policy in making provision for a working library for pupils and teachers of not less than three hundred volumes for each school. At least one hundred volumes of these should be bought each year.

c. *Junior High School.* There should be a general library of at least three hundred volumes selected with reference to the age and needs of junior high school pupils. At least one hundred volumes should be bought each year.

E. ONE-TEACHER BUILDINGS

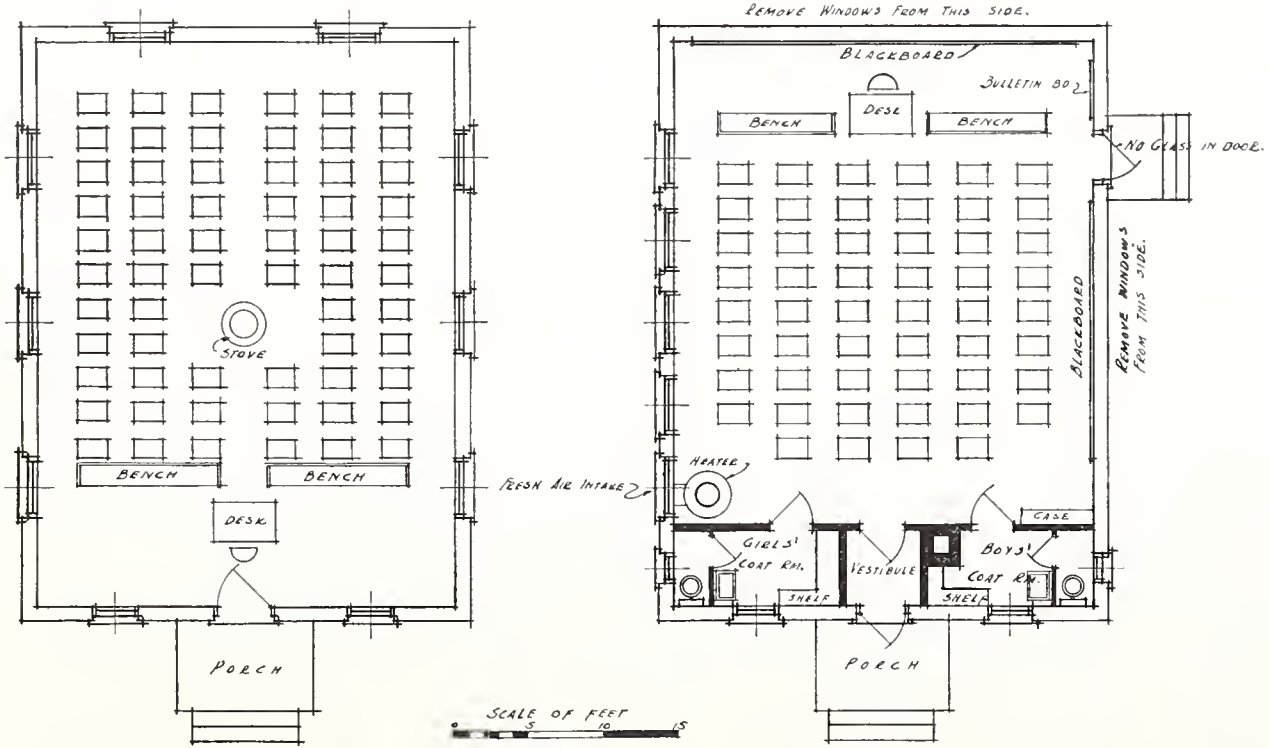
Pupils who attend the one-teacher school have a just right to all the comforts, conveniences, and educational opportunities which are afforded those who have the advantages of the large school plant. Because of Pennsylvania's irregular topography, her road conditions in certain districts and the remote and sparsely settled centers in many counties, the one-teacher rural school must be retained in many places, and rightly so. The one-room school building, therefore, should be planned, designed, and equipped to provide a maximum of modern accommodations at minimum cost.

1. Standard New Type

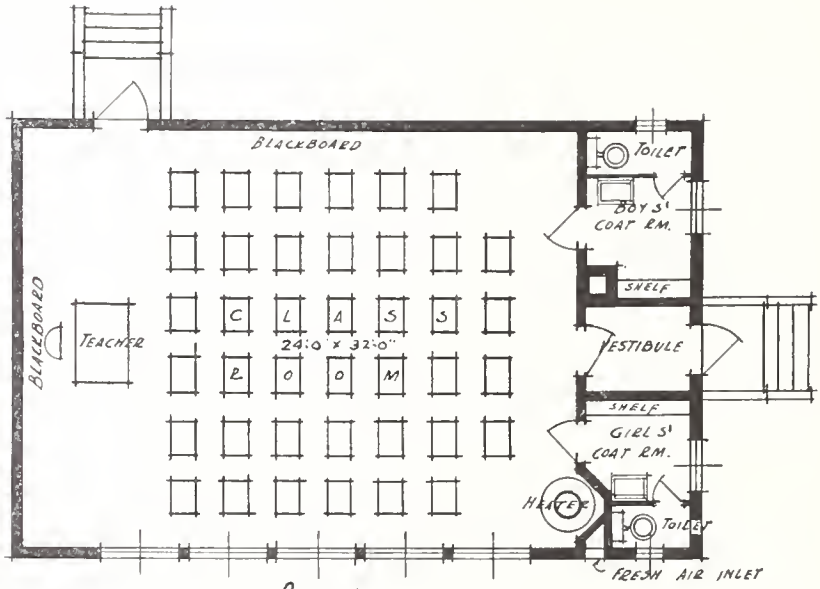
In the accompanying cuts is presented standard school building plan Type A, No. 1. This plan provides a modern one-room school at minimum cost. The classroom is strictly rectangular, unilateral lighting is provided, and separate coat rooms for boys and girls are entered directly from the classroom. A modern ventilating type room heater is shown. The chimney of adequate size has been properly placed at least four feet from the heater jacket which insures proper movement of air within the classroom. Provision has been made for the partial concealment of the heater. This arrangement adds much to the general appearance of the classroom and reduces the obstructionable area and increases the heating efficiency. Inside toilets are provided. Where the flush system is not feasible, a septic toilet system may be installed provided certain building requirements and regulations are adhered to. Plans and specifications for all installations must be submitted and approved by the Department of Public Instruction and State Department of Health.

2. Remodeling Present Buildings

A great number of one-room school buildings in Pennsylvania at present are badly in need of repair. On the other hand, there are many such buildings which are in good condition but were erected prior to the Act of the General Assembly, May 18, 1911. Type R. No. 1 is a plan of general type of existing schoolhouse and the accompanying sketch indicates a suggestive plan for remodeling one of these buildings in accordance with modern principles of schoolhouse design.

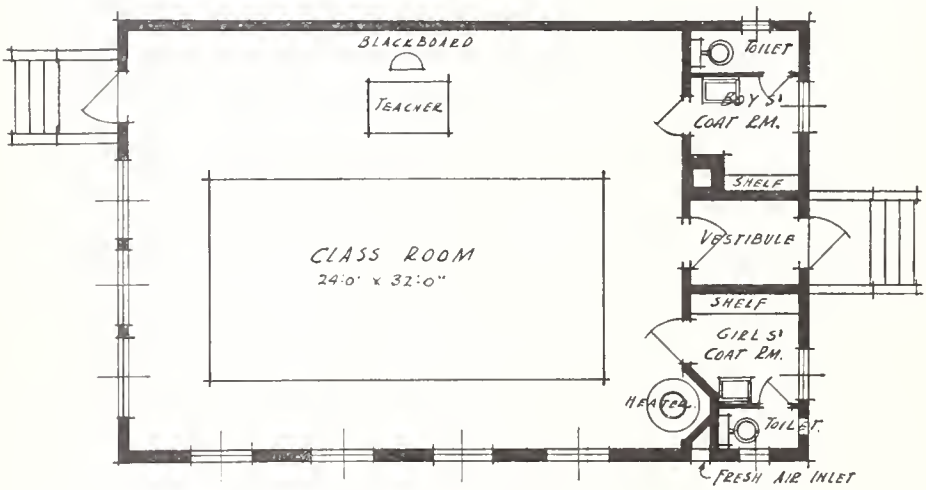


EXISTING SCHOOL HOUSE TYPE R No. 1. REMODELED SCHOOL HOUSE



• PLAN •

TYPE A NO. 1



• ALTERNATE PLAN •

BILATERAL LIGHTING

SCALE OF FEET

0 5 10 15

DEPARTMENT OF PUBLIC INSTRUCTION
BUREAU OF SCHOOL BUILDINGS
HARRISBURG PENNA

The remodeled plan provides a complete one-room unit, at a minimum cost. The size of the classroom will depend upon the dimensions of the existing structure and the amount of space allotted for vestibule and coat rooms. The coat rooms should be at least five feet wide and the length of each will be governed by the width of the vestibule, which should not exceed four feet where space is limited. Space for separate toilets for boys and girls has been provided and a ventilating type room heater with a well protected chimney has been placed at the front of the building. Three windows on the right side and two windows at the rear of the existing building have been removed, two of which have been placed at the left of seated pupils in the remodeled building, unilateral lighting thereby being provided. One of the windows on the right side near the rear wall has been changed into a door to provide an additional exit as required by law.

A building remodeled along the lines suggested insures a well lighted, comfortably heated and ventilated schoolroom, prevents colds and sickness and thereby reduces irregular attendance. The cost of maintenance is less than before it was remodeled and the fuel consumption during winter months is greatly reduced.

V. RURAL SCHOOLS

A. ONE-TEACHER SCHOOL

1. Its Character

School conditions in Pennsylvania vary greatly in the different parts of the Commonwealth. In many of the industrial sections, there is a rather dense population and as a result, we have in most cases the larger schools. On the other hand, in the strictly rural sections of the Commonwealth, we have the one-teacher school.

On account of conditions surrounding many of the one-teacher schools, it will be necessary to have them. It is scarcely possible to combine all the one-teacher schools into larger units. Since it is necessary that we should have some one-teacher schools, it is clearly our duty to make them the very best possible.

The teacher has an opportunity to aid in making the school building and the school grounds a fit place for children to be. If a school property needs improvement, it is the duty of the teacher to make an appeal to the board for improvements, to suggest a plan of improvement, and to see to it that the schoolroom is kept clean and well decorated.

This one-teacher school should be distinctly a community center. It should touch the community life in all of its various phases. The

activities of the school may be so promoted that they will advance the social, religious, commercial, and industrial interests of the whole community. The teacher should be recognized as the dominant factor in the promotion of these activities.

2. Disadvantages

While it is necessary to have the one-teacher schools, it must be realized that they have their disadvantages. That is especially true as they exist in our Commonwealth today. Better school buildings, better equipment, better school yards, better sanitary conditions, a course of study better adapted to the life of the rural child, the longer school term, better teachers and more compensation for teachers—all these are needed. In too many cases we find a dilapidated unsanitary school building, with very meager equipment and frequently located upon ground unfit for school purposes.

On account of the small classes, children of certain ages needing the companionship of others of their own age, do not find this companionship in the one-teacher school. The competition that exists in the classes of the larger schools is wholly lacking in very many of our one-teacher schools. As a result, far too many children, losing interest in school, drop out and go out into life poorly prepared for its duties. When the capabilities of most normal children, if given a chance to develop, are considered, it is apparent that they may be very much handicapped in life if their educational environment has not created an interest in them for their own proper development.

It is not possible to make the one-teacher school equal to the multiple-teacher school. In fact there is abundant evidence that these larger consolidated rural schools furnish educational advantages equal to, if not superior to, those of the city system.

B. CONSOLIDATED SCHOOL

Rapid progress has been made in Pennsylvania. At the close of the school year of 1929-1930, five hundred eight school districts of the state have six hundred forty-seven consolidated schools.

1. Provision for

The General Assembly of Pennsylvania, realizing the benefits that accrue from the consolidation of schools, passed the following act in 1911:

Section 3701. That whenever graded schools can be made to accommodate the pupils of one or more ungraded schools, by consolidating said ungraded school or schools with another school, either graded or

ungraded, it shall be the duty of the board of school directors to abandon the one-room school or schools, and, instead of repairing or rebuilding the one-room schoolhouse or schoolhouses, they shall erect a suitable modern building for the purpose of consolidating and properly grading all of the said schools: Provided, That no pupil of the abandoned schools shall be required to walk more than a mile and a half to the new school building.

The following terms are defined in Section 3702:

That the following words and phrases, as used in this Act, shall, unless a different meaning is plainly required by the context, have the following meanings:

a. A "consolidated school" is a school formed by uniting two or more public elementary schools or two or more public elementary schools with the grades of other public schools, which prior to such union were maintained in separate buildings and after such union are maintained in one school organization taught by two or more teachers.

b. A "consolidated elementary school" is a consolidated school made up of grades one to eight only.

c. A "consolidated junior high school" is a consolidated school having an approved junior high school constituted of grades seven to nine inclusive or seven to ten inclusive.

d. A "joint consolidated school" is a consolidated school organization maintained and controlled by the joint action of two or more school districts.

2. Organization

Joint consolidated schools are organized by a joint meeting of the boards of the various school districts, each board passing a resolution to enter into articles of agreement with the other board or boards, provided suitable terms can be made. A committee is then appointed to determine upon the conditions of the articles of agreement. These articles of agreement must be in harmony with sections 1801-1808 inclusive of the School Law, and provide for two principal factors: first, buildings and grounds, and establish ratios of payment for the same; second, establish ratios of payment for maintenance.

The ratios of payment for buildings, grounds and maintenance are determined wholly by the boards of directors. The articles of agreement may be discontinued at any time by a majority vote of the school directors of each of the respective districts; and the property belonging to the same, when discontinued, shall, unless otherwise agreed upon

by the several districts, be disposed of and distributed to and among them in the same proportion as it was originally contributed.

The teachers for joint schools are elected by the full board of directors and each teacher must have a majority vote of each of the participating boards.

Under Section 3705 of the School Law, we find the following:

> "Consolidated schools or joint consolidated schools shall, so long as they are approved by the State Council of Education as to organization, control, location, equipment, course of study, qualifications of teachers, methods of instruction, condition of admission, expenditures of money, methods and means of transportation and the contracts providing therefor, constitute approved consolidated schools or approved joint consolidated schools."

The Commonwealth in order to encourage the establishment and maintenance of approved consolidated elementary schools or approved consolidated junior high schools or approved joint consolidated schools, shall, as provided in this act, pay annually, from the treasury to school districts and unions of school districts maintaining, or transporting pupils to and from, such schools an amount determined by (a) the true valuation per teacher per district as provided by law and (b) a given percent of the sum which has been expended during the previous school year by such a school district or union of school districts for transporting pupils of said schools to and from said schools.

3. Duties in Consolidating Schools

In order to consolidate the schools of a district, the board has been given the following power under Section 1406 of the School Law:

> "The board of school directors of any school district in this Commonwealth may, on account of the small number of pupils in attendance, or the condition of the then existing school building, or for the purpose of better gradation and classification, or other reasons, close any one or more of the public schools in its district, and, upon such school or schools being so closed, the pupils who belong to the same shall be assigned to other schools or upon cause shown be permitted to attend schools in other districts: Provided, That whenever the average term attendance of pupils regularly enrolled at any one-room school in any school district of the fourth class or township which is a district of the third class is ten or less than ten, the board of school directors shall close such school.
>
> "If the board of school directors does not deem it feasible to close such school, it may present its petition to the State Council of Education, showing the reasons why such school should not be closed; thereupon the State Council of Education shall consider such petition, and shall make such order as may seem just in the premises."

It is provided further that:

"Elementary school pupils who reside within that part of the school district last served by any elementary school closed since the eighteenth day of May, one thousand nine hundred and eleven, or within a district all of whose schools have been closed, or who are assigned to a training school of a State Normal School, and reside one and one-half miles or more from the school to which they are assigned, shall be furnished proper transportation, at the expense of the district, to and from the elementary school to which they are assigned."

4. Financial Aid

The state encourages the consolidation of schools by special State aid:

a Payment to fourth class districts of $200 annually, for each school permanently closed since nineteen hundred and eleven. The word "school" here is construed to mean an elementary or a high school organization. It does not refer to each separate school room or teacher.

b Payment of fifty percent, sixty percent, or seventy-five percent of transportation, the percent depending upon the amount of the actual valuation per teacher in the district.

If the transportation vehicle is owned by the district the state will pay annually fifteen percent of the cost of the vehicle, not to exceed one hundred ($100) dollars per year for depreciation and repairs. This is in addition to the above mentioned payments.

The maximum State aid for fifty percent districts is three thousand dollars ($3,000) per year; for sixty, or seventy-five percent districts it is four thousand dollars ($4,000) per year.

C. TRANSPORTATION

Transportation of school children is of such importance that the following standards have been adopted by the state:

STANDARDS FOR PUPIL TRANSPORTATION

The State Council of Education at its meeting February 7, 1930, adopted the following standards for the transportation of pupils to and from schools:

The School Law provides that transportation "may be furnished by using either school conveyances, private conveyances, or electric railways, or other common carriers."

All vehicles must comply with the provisions of the Motor Code.

Contracts

Methods and means of transportation and the contracts provided therefor shall be approved. (School Law, Sections 1406 and 3705.)

Contracts for transportation must be by written agreement upon forms furnished by the State Department of Public Instruction, except when transportation is to be furnished by public bus, train, or trolley. When transportation is to be furnished by public bus, train, or trolley, a detailed statement indicating the points between which pupils are to be transported, the distance to be traveled and the cost per trip shall be submitted in lieu of a contract.

The contractor shall satisfy the board of school directors as to his financial ability to carry out the provisions of the transportation contract and other legal obligations.

Conveyance—Either Horse or Motor Drawn.

Construction:

The vehicle shall have a closed body, or one that can be easily and quickly closed on both sides and rear.

Proper ventilation shall be provided.

Curtains, when used, shall fit snugly.

Provision shall be made for adequate light.

The driver shall have an unobstructed view to the front, both sides, and rear.

All exits shall be under the control of the driver.

There shall be but one compartment for both driver and pupils.

Aisles leading to doors used by pupils shall be unobstructed.

Steps shall be provided for all exits used by pupils.

At least twelve inches of seating space shall be provided for each pupil.

All seats and back rests shall be well padded.

"School Bus" shall be printed in large letters on rear of vehicle.

Equipment: (See Sections 811 to 820, Motor Code.)

Brakes and all other equipment shall be in good repair.

Blankets or other means to keep pupils comfortable shall be provided.

Motor drawn vehicles shall have in addition to the above, extra tires, chains, wind shield wiper, and outside mirror.

Driver

The driver shall be in good health, thoroughly reliable, of good moral character and good repute.

If the vehicle is motor drawn the driver shall have driver's license; shall have good use of both hands and both feet; shall not be under the age of twenty-one (21) years. (See Section 605, Motor Code.)

Operation

Proper schedule for each vehicle shall be maintained as provided for in contract.

All vehicles must come to a complete stop before traversing railway of trolley grade crossing whenever any signal gives warning of the approach of train or trolley. (Section 1003, Motor Code.)

All motor vehicles used in the transportation of school children shall come to a complete stop immediately before traversing railway or trolley grade crossing. (Section 1027, Motor Code.)

Waiting Station

A station or other proper shelter shall be provided where needed. (School Law, Section 1408.)

It shall protect children from inclement weather.

Suitable shelter shall be provided by the district for those children who have to walk any consequential distance upon the public highway to meet the school conveyance. These shelters are provided in one of three ways:

1. By the use of the old school building. This is usually very unsatisfactory.
2. By the erection of a suitable shelter at a convenient place for the children to meet.
3. By obtaining the privilege of the use of a home. This is considered the most satisfactory plan.

The limit of distance for the transportation of children should be one of time rather than miles.

The directors may provide for free transportation of any pupil to and from the public schools.

VI. FINANCES

A. GENERAL PLAN

The full responsibility for operating and maintaining the public schools lies directly upon the people in each school district through the board of directors they elect and the school officers and employes appointed by the board—superintendent, principals and teachers. The law provides ample authority for the people, through their elective officers, to tax themselves for the operation and maintenance of an

efficient school system. To relieve the districts of excessive taxation the General Assembly appropriates a large portion of the State revenue to be apportioned to the several school districts on such a basis as to give the districts least able to bear the local tax the largest share.

The public places full responsibility for maintaining the schools upon the board of school directors with the understanding that they, the citizens, furnish the necessary funds; and with the further expectation that the funds so provided shall be economically and intelligently expended in providing the best possible education for their children.

1. Principles Involved

a. The determination of a definite educational plan or policy that will meet the aims, aspirations, and needs of the district.

b. The careful planning, in advance, of a fiscal policy that will meet all the educational needs of the district.

c. The establishment of an efficient accounting system.

d. An accounting to the public at the close of the year showing that all funds were honestly and economically expended for the purposes specified when the tax levy was made.

2. Educational Policy

The successful carrying out of an educational plan or policy necessitates the hearty, intelligent and sympathetic coöperation of all the agencies interested—the public, the school board, the supervisory officers, and teachers. There must be public confidence in the school board. The board must recognize the leadership of the educational staff, and give to it sufficient initiative to successfully develop the educational plan or policy set up for the district. The staff must constantly realize its responsibility to keep the school board and the public informed of all educational needs and the means of fulfilling them.

3. The Budget

Good schools cost money. It is therefore fundamentally essential that a careful study of the financial needs of the schools be made each year in advance of the time for levying the tax. The tax cannot be intelligently levied without knowing what the needs are; nor can citizens be expected to pay their taxes willingly unless they understand the purpose for which the money is levied. Few citizens ever question school tax when value is assured for the money expended.

The law requires that all school districts prepare a budget before the tax levy is made. This budget should be tentatively prepared by the

person held responsible by the board for carrying out the educational program planned.

The budget should be carefully prepared in advance and copies presented to each member of the board for careful study previous to the meeting at which it is to be considered and approved. It is the board of school directors which finally considers the tentative budget, but the people should know the purposes for which their money is to be expended during the ensuing year. It is a good plan to lay before the people, through the press, public meetings, or both, the tentative budget. A defensible budget is always safe in the hands of the public.

The budget, as finally approved by the board of school directors, becomes the guide for the executive officers of the board in carrying out the educational policies for the new school year. The working budget, as finally determined, will of necessity meet with modifications as the work of the year proceeds. In spite of the care in the preparation of the budget there will be occasions when transfers from one department to another will be necessary. These transfers cannot be made except on the approval of the board at a formal meeting.

The department has prepared a bulletin available to those desiring detailed information relative to the preparation of a budget.

B. SOURCES OF REVENUE

1. School Tax

As has been said before, ample authority is provided in the law to give school boards the power to levy taxes. School boards must levy their taxes annually in April or May. The tax is limited in the several classes of school districts as follows:

a. *First Class Districts.* "An amount which, with all moneys received from the Commonwealth applicable thereto, shall be sufficient to pay the minimum salaries and increments of the teaching and supervisory staff thereof, as fixed and provided by law, and to pay the contribution of said district to the teachers' retirement system.

"An amount sufficient to pay the interest on, and retire the principal of, the indebtedness of said district at maturity."

"An amount sufficient to pay all other expenses and requirements of said school district, which amount *for the tax years one thousand nine hundred and thirty and one thousand nine hundred and thirty-one* shall be equivalent to not less than two and *three-quarter,* nor more than three *and one-quarter,* mills on the dollar of the total assessment of all property assessed and certified for taxation therein; *and for the tax year one thousand nine hundred and thirty-two and thereafter, an*

amount which shall be equivalent to not less than three, nor more than three and one-half mills on the dollar of the total assessment of all property assessed and certified for taxation therein.

(Amended April 28, 1921, P. L. 328, Sec. 3; March 12, 1929, P. L. 20.)"

b. *Second and Third Class Districts.* Although the law fixes a maximum tax levy of twenty mills for second class districts and twenty-five mills for third class districts, the tax levy necessary to pay teachers the minimum salaries and salary increments provided by law can in no way be affected or invalidated even though it exceed the maximum prescribed above.

c. *Fourth Class Districts.* The tax authorized by law for all school purposes cannot exceed thirty-five mills.

2. Per Capita Tax

A per capita tax may be levied in all districts but first class where, in the judgment of school boards, it is deemed advisable. If this tax is levied it must be levied uniformly on all male and female residents of the district twenty-one years of age or over. The amount to be levied, within the limit of a maximum of five dollars and a minimum of one dollar, is fixed by the board.

The tax collector can proceed to collect the per capita tax in the same way as the property tax.

The per capita tax may also be collected from the association or corporation where the delinquent taxpayer is employed.

3. State Appropriation

The Commonwealth's main contribution toward the support of public schools is paid to the district on the basis of the salaries paid the teachers.

a. *First Class Districts.* For each member of the supervisory and teaching staff the Commonwealth contributes twenty-five percent of the minimum salary, twelve hundred dollars ($1200), prescribed for the elementary school teacher, or three hundred dollars ($300) annually.

b. *Second and Third Class Districts.* For each member of the supervisory and teaching staff holding standard certificates the Commonwealth contributes thirty-five percent of the minimum salary, ten hundred dollars ($1000), prescribed for the elementary school teacher, or three hundred fifty ($350) annually.

c. *Fourth Class Districts.* For each member of the supervisory and teaching staff holding standard certificates the Commonwealth contributes fifty percent of the minimum salary prescribed for the elementary school teacher, one hundred dollars per month ($100), and the high school teacher, one hundred thirty dollars per month ($130) for the full term that schools are in session.

The Commonwealth contributes the same percentage of the minimum salary prescribed for non-standard certificate holders (emergency certificate, seventy-five dollars per month; professional certificate, eighty-five dollars per month); for the term during which schools are in session, as is prescribed for standard certificate holders in the respective classes of districts.

d. "Provided, That the amount paid by the Commonwealth to a school district of the first, second and third class, which has a true valuation per teacher of assessable property of fifty thousand dollars ($50,000), or less, shall be seventy-five percent of the annual minimum salary prescribed herein for elementary teachers in such districts, and that the amount paid to a school district of the first, second and third class which has a true valuation per teacher of assessable property of more than fifty thousand dollars ($50,000), and not more than one hundred thousand dollars ($100,000), shall be sixty per cent of the annual minimum salary prescribed herein for elementary teachers in such districts."—*Provided, That the amount paid by the Commonwealth to a school district of the fourth class, which has a true valuation per teacher of assessable property of fifty thousand dollars ($50,000) or less, shall be seventy-five percent (75%) of the annual minimum salary prescribed herein for teachers in such districts; and that the amount paid to a school district of the fourth class, which has a true valuation per teacher of assessable property of more than fifty thousand dollars ($50,000) and not more than one hundred thousand dollars ($100,000), shall be sixty percent (60%) of the annual minimum salary prescribed herein for teachers in such districts:* (Amended May 7, 1929, P. L. 1622, 1627).

Section 1210—"The Superintendent of Public Instruction shall ascertain and determine the amount of funds required to meet each of the four payments to school districts which become due and payable within the two fiscal years beginning June first, one thousand nine hundred and twenty-three, and ending on May thirty-first, one thousand nine hundred and twenty-five, and each biennium thereafter, on the data and material contained in the certificates which school districts are required by law to file with the said superintendent on November first immediately preceding the beginning of each biennium, and the said superintendent also shall apportion and allot the same to and among the respective districts: Provided, That

the amount paid to any school district within any biennium shall be computed on the data and information contained in the certificates required to be filed on the first day of November of each year as herein provided. In no case shall the amount paid to any school district exceed the amounts computed on such data. (Amended May 13, 1925, P. L. 681, Sec. 2)."

4. Special State Appropriations

a. *Closed Schools.* In order to equalize educational opportunity further and to help districts where the population is decreasing, the Commonwealth contributes to school districts of the fourth class two hundred dollars ($200) annually, beginning with the school year 1921-1922, for each school building closed permanently since 1911. This does not apply to schools established since April 28, 1921, and subsequently closed. The minute books of the board must show as a permanent record that these schools were closed permanently, giving the date of closing and the disposition made of the schools closed.

b. *Transportation.* The best educational opinion is that an efficient and economical school cannot be maintained where ten or less pupils are in regular attendance. The law provides, therefore, that whenever the average term attendance of pupils regularly enrolled in only one-room school in any school district of the fourth class or township which is a district of the third class is ten or less than ten the board of school directors shall close such school. To relieve the district of the full burden involved in the transportation of the children of these schools who live one and one-half miles or more from the school to which they have been assigned the Commonwealth pays fifty (50), sixty (60) or seventy-five (75) percent of the transportation cost up to one dollar per day per pupil.

c. *Transportation to Consolidated Schools.* To encourage consolidation the Commonwealth contributes (50), sixty (60) or seventy-five (75) percent of the cost of transporting the pupils who live one and one-half miles or more from an approved consolidated school, provided the amount to be contributed does not exceed three thousand dollars ($3,000) per annum for districts receiving reimbursement on the basis of fifty (50) percent, and does not exceed four thousand dollars ($4,000) per annum for districts receiving reimbursement on the basis of seventy-five (75) percent or sixty (60) percent.

Section 1418. In case there is no public school in session within two miles by the nearest public highway of the residence of any child, such child shall be exempt from the provisions of this act relating to compulsory attendance, unless proper free transportation be furnished to such child to and

from school: Provided, If proper free transportation is furnished to any child under sixteen years of age to and from school the Commonwealth shall reimburse any school district of the fourth class furnishing such transportation in the same manner and amounts as provided for in this act for transportation of pupils from closed schools. (Amended May 13, 1925, P. L. 628, Sec. 5; March 29, 1927, P. L. 75).

d. *Vocational Education.* To encourage the teaching of agriculture, home economics, industrial work, and the maintenance of continuation classes, the State and the Federal Government contribute liberally toward the support of vocational departments or vocational schools that meet the requirements of the Federal and State laws.

e. *Special Classes.* And provided further, That for each full-time teacher of a special class, and for each full-time supervisor or principal of special schools or classes organized by any school district and approved under legislation providing for the special education of physically or mentally handicapped pupils, there shall be paid to the district, in addition to other payments herein provided, sums as follows: To districts of the first class, twenty-five percent (25%) and to other districts, thirty percent (30%) of the minimum salary respectively prescribed herein for elementary teachers in such respective districts; and for each part time teacher, supervisor, or principal employed in approved special education, a fraction of such amounts proportional to the time for which such person is employed: And provided further, That the total amount paid to any school district on account of any such teacher, supervisor, or principal employed in special education shall not exceed eighty percent (80%) of the salary actually paid to such persons: (Amended March 26, 1925, P. L. 78, Sec. 1).

f. *Extension Education.* And provided further, That for each member of the teaching and supervisory staff employed by any school district in extension schools and classes approved by the Department of Public Instruction, established for the education of adults and legally employed minors and not designated as continuation or other vocational schools or classes, the Commonwealth shall pay to the several districts the same percent of the minimum salary herein required to be paid to teachers in such extension schools and classes as is paid to such districts of the minimum salary of the full-time teachers: (Amended, May 6, 1925, P. L. 547, Sec. 1).

C. HANDLING THE MONEYS

1. How Appropriations are Paid

Appropriations are made on the basis of applications submitted by school boards through the county or district superintendent as follows:

a. Teachers' salary and closed school, on or before November first.

b. Transportation, on or before July first.

c. Vocational, on or before July tenth.

d. Special classes, on or before November first. (Same as for teachers' salaries).

e. Extension Education, on or before November first.

The appropriation due districts on the basis of salaries, and the amount due for closed schools, are paid in two equal installments as follows:

In fourth class districts during February and August.

In second and third class districts during March and September.

In first class districts during April and October.

2. How School Moneys are Paid

The secretary of the school board is the financial officer of the board. He issues all warrants on the treasurer for the payment of salaries, etc., upon request of the board. He keeps all accounts, and is responsible for all the records and reports of the district. It is essential that the secretary be one who appreciates the importance and responsibilties of this office. The secretary of a second, third or fourth class district must be a resident of the district during the term of service.

To simplify records and the work of the secretary many school boards are now paying teachers by calendar month rather than each twenty teaching days as heretofore. The advantage of making some one in the bank, where the school funds are deposited, the treasurer of the district has also been found by school boards to be both economical and practicable.

All bills of the district must be paid by order on the treasurer after approval and authorization of the school board. A careful accounting of all funds received and expended must be kept by the secretary and must be audited annually. It is suggested that the accounting system, provided free by the department, be used in keeping accounts. This will facilitate auditing, minimize the work of the secretary and simplify the making out of the annual report.

3. Bond Issues and Temporary Loans

The forms of indebtedness which a school district may incur fall into three general classes:

Class A—Temporary Loans.

Class B—Bonds Issued by the Board of School Directors Without the Approval of the Electors.

Class C—Bonds Issued by Majority Vote of the Electors.

a. *Class A—Temporary Loans.* School districts with no indebtedness or whose indebtedness is less than two per centum of the assessed valuation of the taxable property of the school district may, by a two-thirds vote of the board, borrow on temporary loan an amount equal to four-tenths of one per centum of the assessed valuation in first and second class districts, and one per centum in third and fourth class districts. The amount borrowed must be repaid from current revenues within two years, and the obligation cannot be extended or renewed. The total amount of all temporary loans and bonds or other indebtedness incurred without a vote of the people in any school district issuing such obligations shall not, at any time, including such obligatons, exceed two per centum of the total valuation of taxable property therein, Only by a vote of the people can the indebtedness of any district be increased to an amount in excess of two per centum of the assessed valuation.

The law requires that school boards prepare a budget in anticipation of the tax levy necessary to meet the financial needs for the subsequent school year. The law also provides that the expenditures during any school year shall not exceed the budget estimate. In spite of this many school districts find themselves short of funds at times during the year and resort to the temporary loan to tide them over. Although the practice is necessary at times, careful planning can reduce the necessity of borrowing money to a minimum.

b. *Class B—Bonds Issued by the Board of School Directors Without the Approval of the Electors.* In general terms it might, therefore, be said that school bonds can be issued for the acquisition of a new school ground and for building and equipment purposes only. The issue of bonds for the refunding of existing indebtedness is financially unsound and, except in cases of emergency, should be frowned upon by all school boards as an unbusiness-like practice.

The Pennsylvania Constitution limits the period for which bonds can be issued, fixing the maximum term at thirty years. This thirty-year period should be considered the extreme limit, and the term for which bonds are to be issued should be determined after a careful study of the anticipated project.

Under the following conditions, school boards may issue bonds up to two per centum of the assessed valuation of the taxable property in the school district:

1. When there are no outstanding temporary loans issued under Class A.
2. When the total outstanding indebtedness, including temporary loans and bonds issued by vote of the people, does not exceed five percent of the assessed valuation.

In case there are temporary loans outstanding the amount of such loans must be deducted from the two per centum allowed. For example, if a school board had borrowed one per centum on temporary loans it could issue bonds under Class B in an amount not to exceed one per centum of the assessed valuation.

No temporary or deficiency notes should be refunded from the proceeds of such a bond issue.

c. *Class C—Bonds issued by Majority Vote of the Electors.* Bonds to the extent of seven percent of the assessed valuation may be issued by the school board with the consent and approval of a majority of the electors. It is to be observed, however, that if there are any outstanding bonds issued under Class B, or notes issued under Class A, they must be deducted from the seven percent allowance. Under no circumstances can the total bonded and temporary indebtedness in any school district exceed seven per centum of the assessed valuation.

The simplest method for the payment of school bonds is the installment or serial plan. It not only avoids the complications arising out of the maintenance of a sinking fund, but its operation is so simple and direct as to avoid all misunderstandings. All the arguments that can be mustered against the sinking fund plan for repayment of school bonds can be used to support the serial plan.

d. *Class D*—The president of each school board, and the president or chairman of the board of poor directors or overseers of each poor district, which shall have any proceedings for the incurring or increasing of indebtedness, except notes issued in anticipation of revenue for not more than one year, shall, before any bonds or evidences of indebtedness are actually issued and sold, certify to the Department of Internal Affairs a complete and accurate copy of the proceedings had for such incurring or increasing of indebtedness, together with the assessed valuation of the property subject to taxation within the respective municipality, the total amount of the existing indebtedness, and the several amounts claimed as permitted deductions in ascertaining the real indebtedness of such municipality.

The Department of Internal Affairs shall immediately, upon receipt of any such proceedings and facts, examine the same; and if such proceedings are found to be in accordance with the Constitution and law, shall, within twenty days after the receipt thereof, approved the same and certify its approval to the proper municipality.

It shall be unlawful for any municipality to issue or sell any bonds or other evidences of indebtedness, unless the provisions of this act have been complied with, and all such bonds and other evidences of indebtedness issued contrary to the provisions of this act shall be invalid, and shall impose no liability on the municipality, or have any lien.